

**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Betelhem Shewareged Examiner #: 75633 Date: 01/30/2007  
 Art Unit: 1774 Phone Number 305-712-7212 Serial Number: 101542,532  
 Mail Box and Bldg/Room Location: REM 10465 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Ctr.

Title of Invention: Ink jet recording material

JAN 30 RECD

Inventors (please provide full names): Alain Dominique M. Sismondi

Pat. & T.M. Office

Earliest Priority Filing Date: 01/17/2003

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

(1) Ink jet recording material comprising Formula I, where in  
 y of Formula I is represented by Formula II.  
 see claim 1

(2) Ink jet recording material comprising the formula  
 in claim 2.

(3) Ink jet recording material comprising formula (a) in claim 3

(4) Ink jet recording material comprising formula (b) in claim 3

(There wasn't enough close art out there to merit subdividing  
 the search results any further.)

**STAFF USE ONLY**Searcher: Ed

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 2-1-07

Searcher Prep &amp; Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

**Type of Search****Vendors and cost where applicable**

NA Sequence (#) \_\_\_\_\_ STN \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_ Dialog \_\_\_\_\_

Structure (#) \_\_\_\_\_ Questel/Orbit \_\_\_\_\_

Bibliographic \_\_\_\_\_ Dr. Link \_\_\_\_\_

Litigation \_\_\_\_\_ Lexis/Nexis \_\_\_\_\_

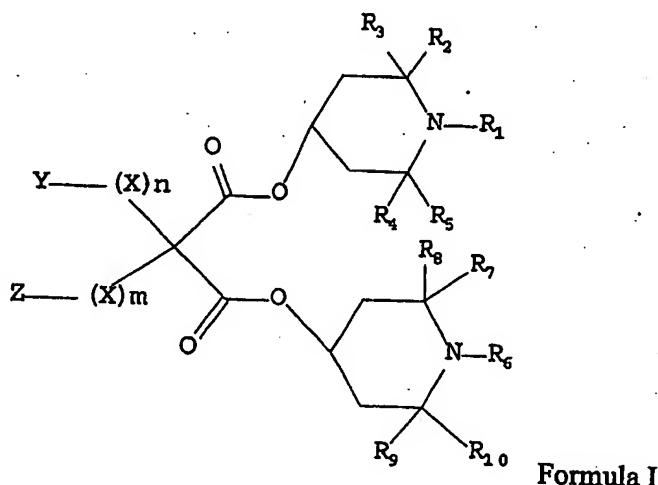
Fulltext \_\_\_\_\_ Sequence Systems \_\_\_\_\_

Patent Family \_\_\_\_\_ WWW/Internet \_\_\_\_\_

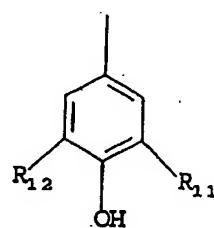
Other \_\_\_\_\_ Other (specify) \_\_\_\_\_

**Ink-Jet Recording Material****CLAIMS.**

1. Ink-jet recording material having at least an ink-receiving layer comprising alumina particles, a binder resin, boric acid or borate and a color fading inhibitor compound of the following Formula I:



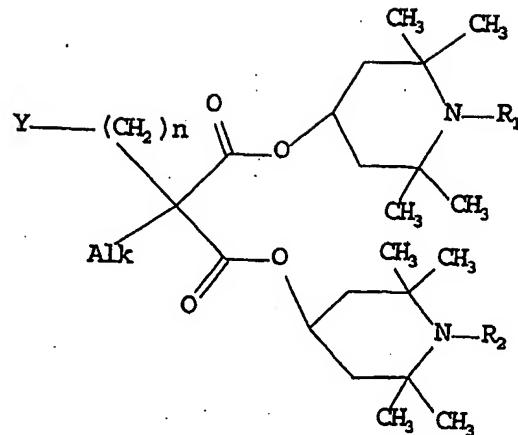
10 wherein R<sub>1</sub> to R<sub>10</sub>, being the same or different, each are an alkyl group having from 1 to 5 carbon atoms; X is a divalent linking group; m and n, equal or different, are 0, 1 or 2; Z is Y or is an alkyl group having from 1 to 12 carbon atoms, and Y is represented by formula II,



Formula II

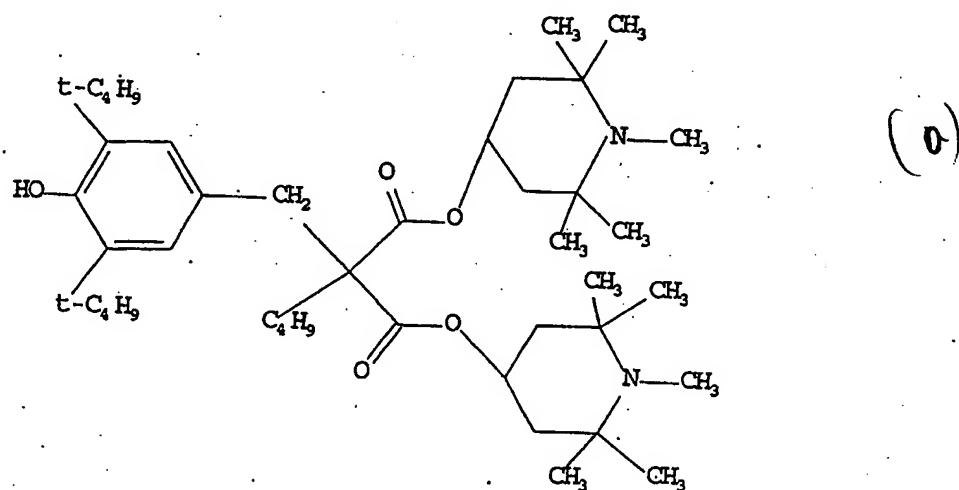
15 wherein R<sub>11</sub> and R<sub>12</sub> each being an alkyl group having from 1 to 6 carbon atoms, said ink-jet recording material being substantially free of thiocyanate compounds.

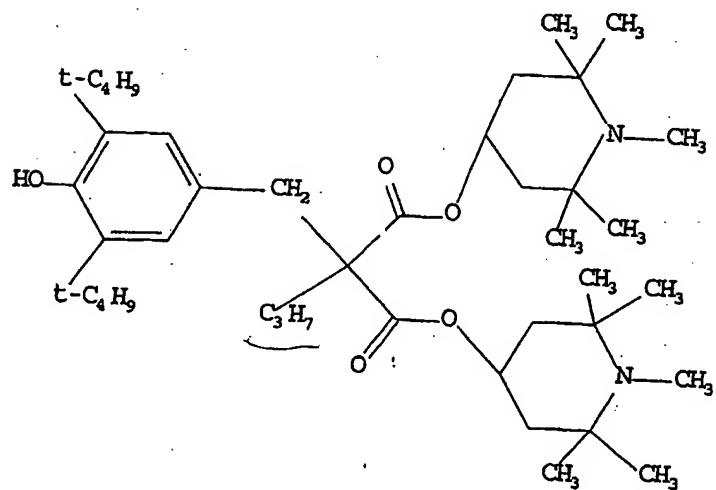
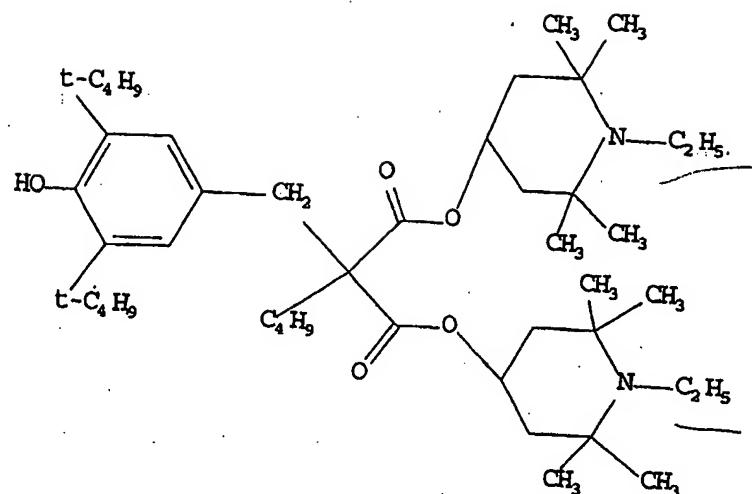
- 20 2. Ink-jet recording material according to claim 1, wherein the color fading inhibitor compound is represented by formula:



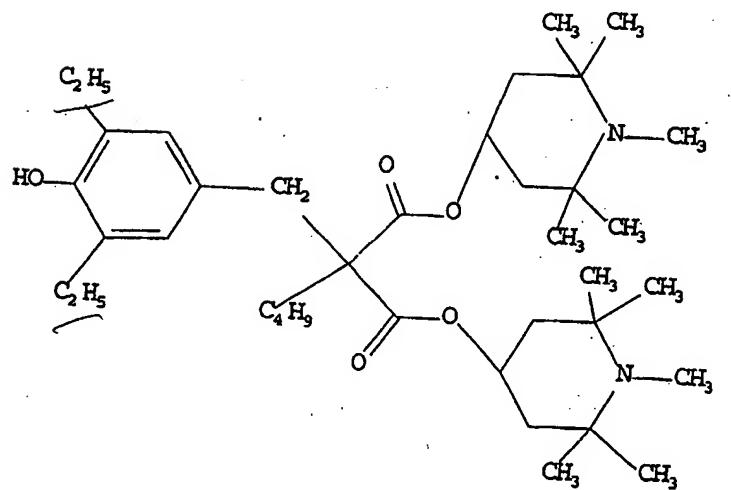
wherein,  $Y$ ,  $R_1$  and  $R_2$  are as above and  $\text{Alk}$  is an alkyl group having from 1 to 12 carbon atoms.

- 5 3. Ink-jet recording material according to claim 1, wherein the color fading inhibitor compound is represented by formulas:





5



8. An ink-jet recording material according to claim 1, wherein the average pore radius of the alumina particles is in the range from 2 to 100 nm.
9. An ink-jet recording material according to claim 1, wherein the alumina particles have a pore radius maximum within a range of from 9 to 12 nm in a pore radius distribution of the fine powder material and a total volume of pores having radii not exceeding 5 nm is not more than 10 % of a volume of all pores of the fine powder material.
10. An ink-jet recording material according to claim 1, wherein the binder resin is a polyvinyl alcohol.
11. An ink-jet recording material according to claim 10, wherein the polyvinyl alcohol has a saponification degree lower than 90%.
12. An ink-jet recording material according to claim 10, wherein the polyvinyl alcohol has a polymerization degree lower than 1500.
13. An ink-jet recording material according to claim 1, wherein soluble salts of boric acids are used.
14. An ink-jet recording medium according to claim 1, wherein said ink-receiving layer additionally comprises at least one surfactant.
15. Use of an ink-jet recording material substantially free of thiocyanate compounds as described in claim 1 to 14 to improve the gas resistance of images recorded on it.
- 20 16. An ink-jet recording microporous material showing an optical density average lost percentage lower than 20% after 24 weeks of exposition to air atmosphere under 2 Klux intensity fluorescent light exposure, at 50% relative humidity, and at 23°C.

=> FILE REG

FILE 'REGISTRY' ENTERED AT 11:58:38 ON 01 FEB 2007  
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=> D HIS

FILE 'LREGISTRY' ENTERED AT 11:12:24 ON 01 FEB 2007  
L1 STR

FILE 'REGISTRY' ENTERED AT 11:40:21 ON 01 FEB 2007  
L2 5 S L1  
L3 116 S L1 FUL  
SAV L3 SHE532/A

FILE 'CAOLD' ENTERED AT 11:45:18 ON 01 FEB 2007  
L4 0 S L3

FILE 'HCA' ENTERED AT 11:47:15 ON 01 FEB 2007  
L5 547 S L3  
L6 84237 S INK? OR JET?(2A)PRINT?

FILE 'REGISTRY' ENTERED AT 11:47:17 ON 01 FEB 2007  
E ALUMINA/CN  
L7 1 S E3  
E BORIC ACID/CN  
L8 1 S E3  
E BORATE/CN  
L9 2 S E3

FILE 'HCA' ENTERED AT 11:53:12 ON 01 FEB 2007  
L10 520930 S L7 OR ALUMINA# OR (ALUMINUM# OR AL) (W) (OXIDE# OR TRIOXI  
L11 56902 S L8 OR BORIC#(A)ACID# OR H3BO3 OR B(W)OH(W)3  
L12 902758 S BINDER? OR BONDER? OR RESIN?  
L13 8634 S JET?(2A)RECORD?  
L14 35 S L5 AND (L6 OR L13)  
L15 3 S L14 AND L10  
L16 1 S L14 AND L11  
L17 20 S L14 AND L12  
L18 3 S L15 OR L16  
L19 19 S L17 NOT L18  
L20 13 S L14 NOT (L18 OR L19)  
L21 16 S 1840-2003/PY,PRY AND L19  
L22 11 S 1840-2003/PY,PRY AND L20

FILE 'REGISTRY' ENTERED AT 12:04:01 ON 01 FEB 2007

L23 1 S 63843-89-0  
 L24 115 S L3 NOT L23

FILE 'HCA' ENTERED AT 12:04:27 ON 01 FEB 2007  
 L25 169 S L24

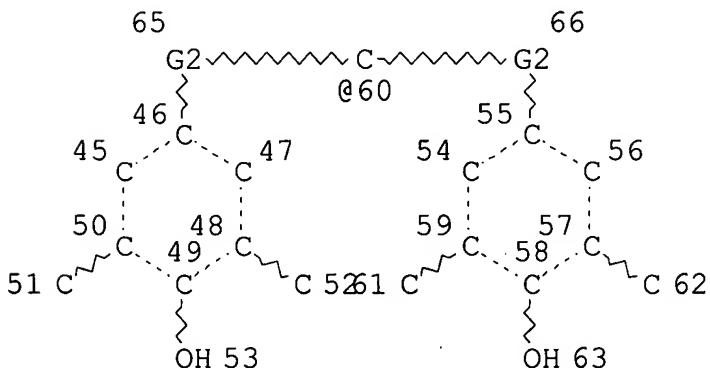
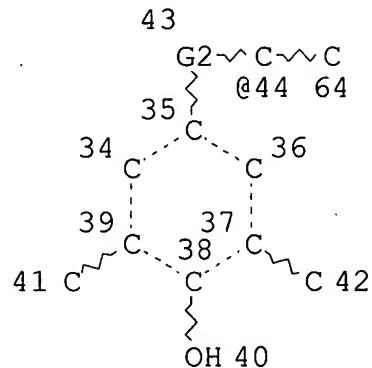
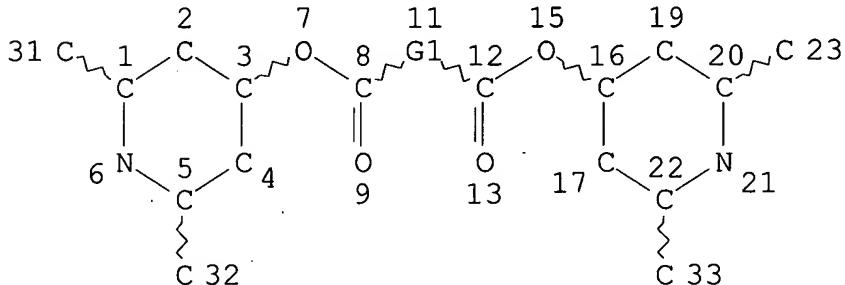
FILE 'REGISTRY' ENTERED AT 12:09:12 ON 01 FEB 2007  
 L26 1 S 63941-39-9  
 L27 114 S L3 NOT (L23 OR L26)

FILE 'HCA' ENTERED AT 12:09:35 ON 01 FEB 2007  
 L28 126 S L27  
 L29 120 S 1840-2003/PY,PRY AND L28  
 L30 117 S L29 NOT (L18 OR L21 OR L22)  
 L31 70888 S L9 OR BORATE#  
 L32 1 S L14 AND L31  
 L33 0 S L32 NOT (L18 OR L21 OR L22)

FILE 'REGISTRY' ENTERED AT 11:58:38 ON 01 FEB 2007

=> D L3 QUE STAT

L1 STR



VAR G1=44/60  
REP G2=(0-3) C  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 56

STEREO ATTRIBUTES: NONE  
L3 116 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 622 ITERATIONS 116 ANSWERS  
SEARCH TIME: 00.00.01

=> FILE HCA  
FILE 'HCA' ENTERED AT 12:00:11 ON 01 FEB 2007  
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=> D L18 1-3 CBIB ABS HITSTR HITIND

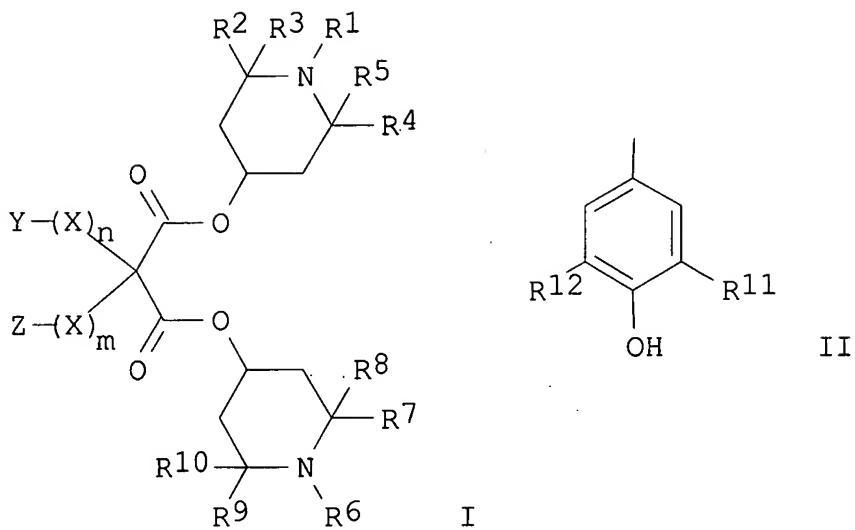
L18 ANSWER 1 OF 3 HCA COPYRIGHT 2007 ACS on STN  
141:175718 **Ink-jet recording** material and

use to improve gas resistance of recorded images. Sismondi, Alain  
Dominique M. (Ferrania S.P.A., Italy). PCT Int. Appl. WO 2004065130  
A1 20040805, 33 pp. DESIGNATED STATES: W: AE, AE, AG, AL, AL, AM,  
AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY,  
BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK,  
DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH,  
GH, GH, GM, HR, HR, HU, HU, ID, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG,  
KP, KP, KP, KR, KR, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA,  
MD, MD, MG, MK, MN, MW, MX, MX, MZ. (English). CODEN: PIXXD2.

APPLICATION: WO 2004-EP131 20040112. PRIORITY: IT 2003-SV1  
20030117.

GI

*Applicant's*

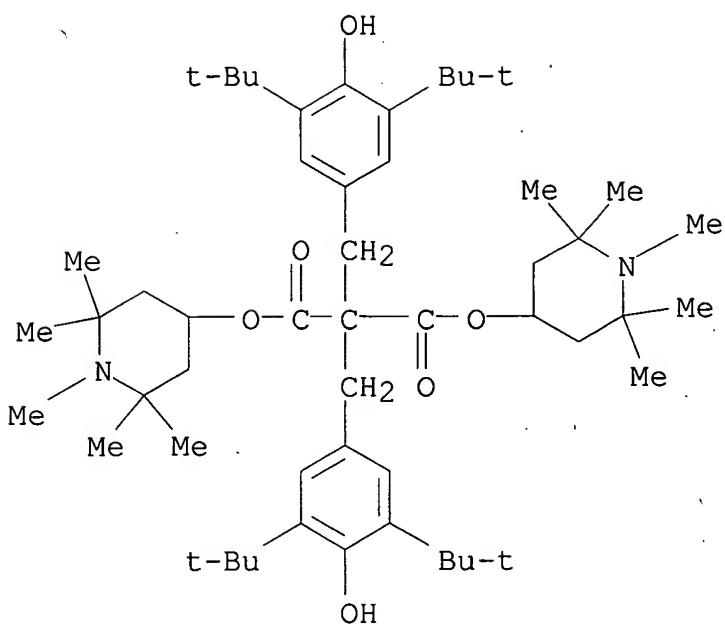


AB The **ink-jet recording** material has  $\geq 1$  porous **ink** receiving layer comprising **alumina** particles, a binder resin, **boric acid** or borate, and a color fading inhibitor compd. I, where R1-10 = C1-5-alkyl; X is a divalent linking group; m and n = 0, 1 or 2; Z is Y or C1-12-alkyl; Y is II; R11 and R12 = C1-6-alkyl, and the **ink-jet recording** material being substantially free of thiocyanate compds. An example of a fading inhibitor was Tinuvin 144.

IT 56677-67-9 63843-89-0, Tinuvin 144  
158462-94-3 173071-61-9 731863-29-9  
731863-30-2

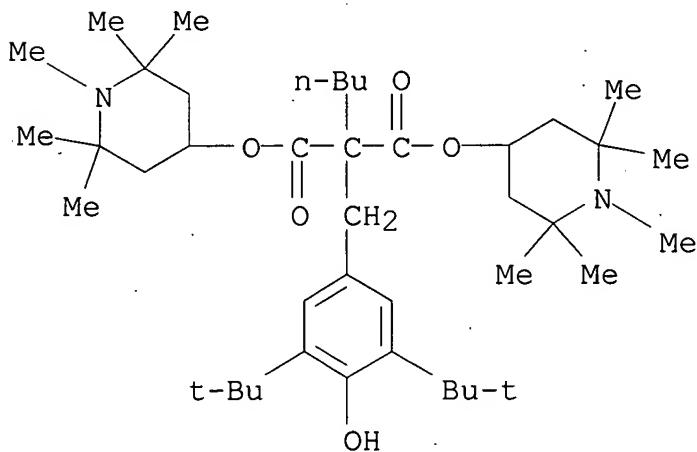
(yellowing prevention agents for use in **ink-jet recording** material)

RN 56677-67-9 HCA  
CN Propanedioic acid, bis[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



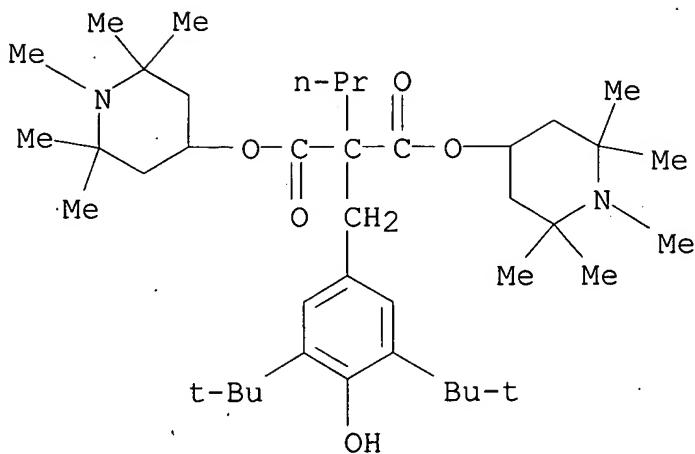
RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



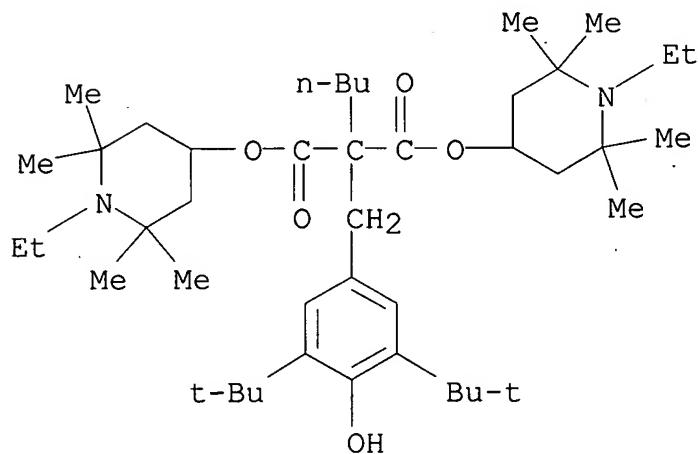
RN 158462-94-3 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]propyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



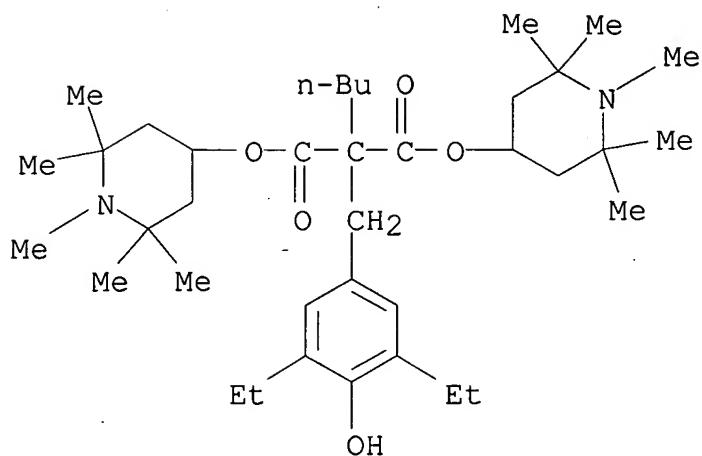
RN 173071-61-9 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1-ethyl-2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



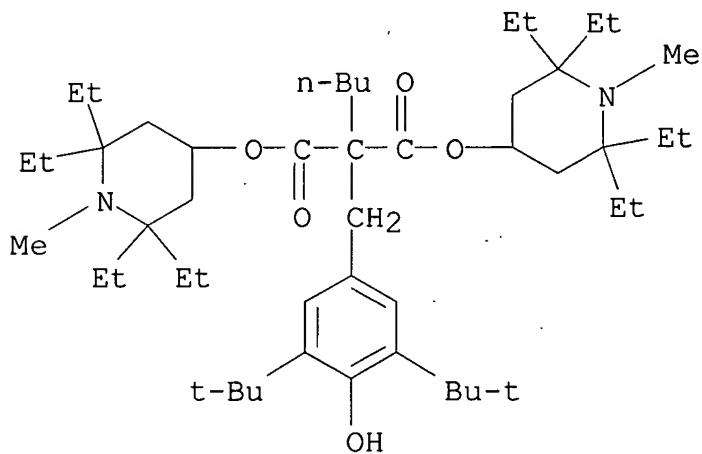
RN 731863-29-9 HCA

CN Propanedioic acid, butyl[(3,5-diethyl-4-hydroxyphenyl)methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



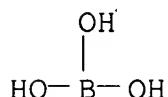
RN 731863-30-2 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(2,2,6,6-tetraethyl-1-methyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

IT 10043-35-3, Boric acid, uses  
(yellowing prevention agents for use in **ink-jet recording** material)

RN 10043-35-3 HCA

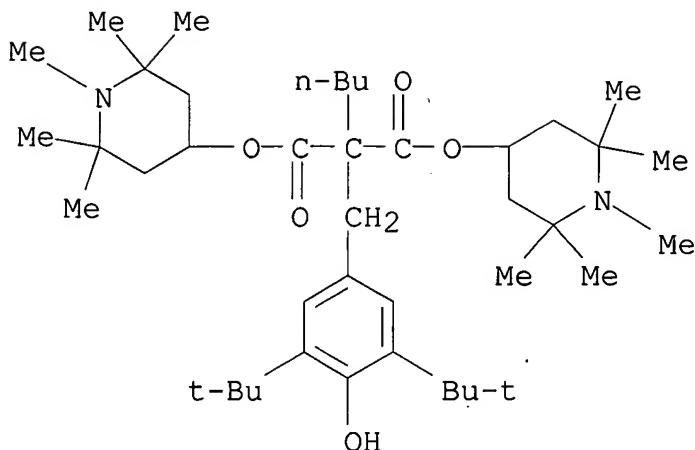
CN Boric acid (H3BO3) (CA INDEX NAME)



IC ICM B41M005-00

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
Section cross-reference(s): 42, 74  
ST yellowing prevention agent **ink jet**  
**recording sheet**  
IT Paper  
(coated; yellowing prevention agents for use in **ink-jet recording** material)  
IT Antiyellowing agents  
**Ink-jet recording sheets**  
(yellowing prevention agents for use in **ink-jet recording** material)  
IT 98002-49-4, Airvol 523  
(binder; yellowing prevention agents for use in **ink-jet recording** material)  
IT 24623-77-6, Disperal HP 14  
(boehmite-type; yellowing prevention agents for use in **ink-jet recording** material)  
IT 56677-67-9 63843-89-0, Tinuvin 144  
158462-94-3 173071-61-9 731863-29-9  
731863-30-2  
(yellowing prevention agents for use in **ink-jet recording** material)  
IT 10043-35-3, **Boric acid**, uses  
(yellowing prevention agents for use in **ink-jet recording** material)

L18 ANSWER 2 OF 3 HCA COPYRIGHT 2007 ACS on STN  
134:334305 Printing medium containing thiocyanate or hindered amine and printed material. Tanuma, Toshihiro (Asahi Glass Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001121807 A 20010508, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-302376 19991025.  
AB The medium comprises a substrate coated with an **ink-receiving layer** contg. **silica-alumina** complex sol and ≥1 of thiocyanate and hindered amine. The medium may be used as **ink-jet printing** receptor. The printed material using the medium on which dye image is formed is also claimed. The medium shows good **ink** absorption, dye fixability, and gives images with high gloss, water and abrasion resistance, and good storage stability.  
IT 63843-89-0D, Tinuvin 144, amidesulfate  
(**ink-jet printing** sheet with **ink** receiving layer contg. **silica-alumina** sol and thiocyanate and/or hindered amine)  
RN 63843-89-0 HCA  
CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



- IT 1344-28-1, **Alumina**, uses  
 (ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- RN 1344-28-1 HCA
- CN Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (8CI, 9CI) (CA INDEX NAME)
- \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*
- IC ICM B41M005-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST ink jet printing receptor silica alumina sol; thiocyanate hindered amine printing receptor
- IT Ink-jet recording sheets  
 (ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- IT 91788-83-9D, LA 52, amidesulfate  
 (LA 52; ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- IT 64022-61-3D, LA 57, amidesulfate  
 (LA 57; ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- IT 107119-91-5D, LA 62, amidesulfate  
 (LA 62; ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- IT 100631-43-4D, amidesulfate  
 (LA 67; ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)
- IT 306-61-6, Magnesium thiocyanate 333-20-0, Potassium thiocyanate

540-72-7, Sodium thiocyanate 2092-16-2, Calcium thiocyanate  
 52829-07-9D, Tinuin 770, amidesulfate **63843-89-0D**,  
 Tinuin 144, amidesulfate

(ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)

IT **1344-28-1**, Alumina, uses 7631-86-9, Silica, uses  
 (ink-jet printing sheet with  
 ink receiving layer contg. silica-alumina sol  
 and thiocyanate and/or hindered amine)

L18 ANSWER 3 OF 3 HCA COPYRIGHT 2007 ACS on STN

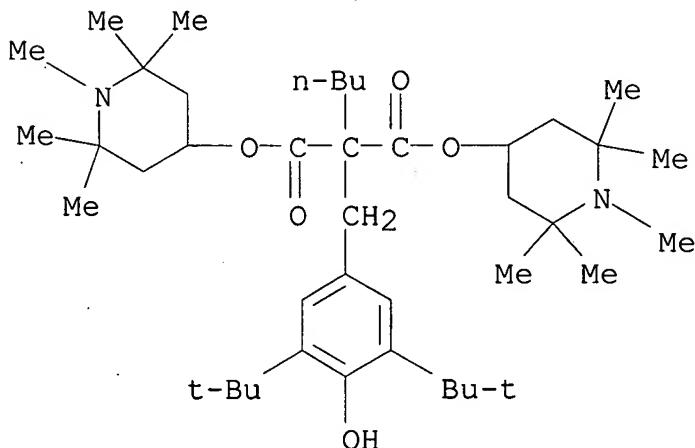
133:215483 Ink-jet recording sheet  
 containing tetramethylpiperidine compound and thiocyanate and  
 recorded product. Tanuma, Toshihiro (Asahi Glass Co., Ltd., Japan).  
 Jpn. Kokai Tokkyo Koho JP 2000238421 A 20000905, 5 pp.  
 (Japanese).. CODEN: JKXXAF. APPLICATION: JP 1999-47218 19990224.

AB The title recording sheet possesses, on a substrate, a porous  
 ink-receiving layer contg. a 2,2,6,6-tetramethylpiperidine  
 ring-contg. compd. with mol. wt.  $\leq 1000$  and a thiocyanate. A  
 recorded product is also claimed, possessing the ink  
 -receiving layer in which a dye is held on a substrate. The  
 recording sheet shows improved ink absorption and dye  
 fixability and provides high quality images without discoloration  
 upon storage.

IT **63843-89-0**, Tinuin 144  
 (ink-jet printing sheet with porous  
 ink-receiving layer contg. tetramethylpiperidine compd.  
 and thiocyanate)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-  
 hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-  
 piperidinyl) ester (9CI) (CA INDEX NAME)



IT **1344-28-1P, Alumina, preparation**  
(sol; **ink-jet printing** sheet with  
porous **ink-receiving layer** contg. tetramethylpiperidine  
compd. and thiocyanate)

RN 1344-28-1 HCA

CN Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST **ink jet recording** sheet tetramethyl  
piperidine; thiocyanate **ink jet**  
**recording** sheet; **alumina** sol porous layer  
recording sheet

IT **Ink-jet recording** sheets  
(**ink-jet printing** sheet with porous  
**ink-receiving layer** contg. tetramethylpiperidine compd.  
and thiocyanate)

IT 540-72-7, Sodium thiocyanate 52829-07-9, Tinuvin 770  
**63843-89-0**, Tinuvin 144 64022-61-3, ADK Stab LA 57  
68548-08-3, ADK Stab LA 82 91788-83-9, ADK Stab LA 52  
100631-43-4, ADK Stab LA 67 107119-91-5, ADK Stab LA 62  
122586-52-1, Tinuvin 123 226894-73-1, ADK Stab LX 332  
(**ink-jet printing** sheet with porous  
**ink-receiving layer** contg. tetramethylpiperidine compd.  
and thiocyanate)

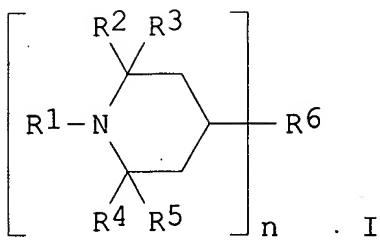
IT 555-31-7, Aluminum isopropoxide  
(prepn. of **alumina** sol)

IT **1344-28-1P, Alumina, preparation**  
(sol; **ink-jet printing** sheet with  
porous **ink-receiving layer** contg. tetramethylpiperidine  
compd. and thiocyanate)

=> D L21 1-16 CBIB ABS HITSTR HITIND

L21 ANSWER 1 OF 16 HCA COPYRIGHT 2007 ACS on STN  
143:79630 Photochromic spirooxazine and/or spiropyran compositions  
showing good lightfastness. Yasuda, Michiyuki; Sugai, Atsushi;  
Kimura, Fumihiro (Pilot Ink Co., Ltd., Japan). Jpn. Kokai Tokkyo  
Koho JP 2005171038 A 20050630, 16 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 2003-411251 20031210.

GI



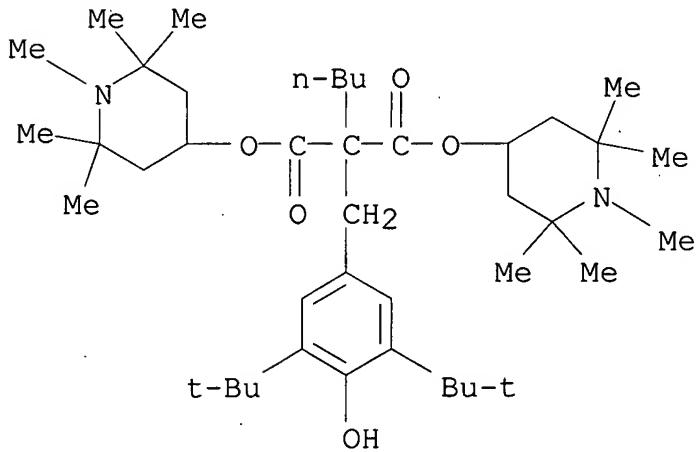
AB The compns. contain photochromic spirooxazines and/or spiropyrans, org. compds. showing b.p.  $\geq 150^\circ$ , and hindered amines I (R<sup>2</sup> = C<sub>1-30</sub> alkyl; R<sup>2-R5</sup> = C<sub>1-5</sub> alkyl, R<sup>6</sup> = n-valent org. group; n  $\geq 1$ ). Thus, a compn. contg. 1,3,3-trimethyl-6-trifluoromethyl-6-(1-piperidinyl)spiroindolinennaphthooxazine 1, myristyl alc. 25, cetyl caprylate 25, and Sanol LS 765 (1,2,2,6,6,-pentamethyl-4-piperidyl sebacate) 2 parts showed reversible color change between white and red by UV irradn. A cotton fabric was printed with an **ink** contg. **NK Binder AS 83** (acrylic emulsion), and the compn. encapsulated by Araldite GY 250 (bisphenol A epoxy **resin**)-diethylenetriamine copolymer.

IT 63843-89-0, Tinuvin 144

(light stabilizer; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C09K009-02

CC 40-6 (Textiles and Fibers)

- ST Section cross-reference(s): 38, 42, 43  
photochromic spirooxazine hindered amine lightfastness;  
lightfastness photochromic spiropyran hindered amine; myristyl alc  
spiro indolinenaphthooxazine photochromic **ink**; cetyl  
caprylate spiro indolinenaphthooxazine photochromic **ink**;  
methylpiperidyl sebacate spiro indolinenaphthooxazine photochromic  
**ink**; cotton fabric dyeing photochromic **ink** spiro  
indolinenaphthooxazine; microcapsule spiro indolinenaphthooxazine  
photochromic dye **ink**
- IT Isocyanates  
(arom., polymers, reaction products with gelatins, photochromic  
compns. encapsulated in; photochromic spirooxazine and/or  
spiropyran compns. showing good lightfastness for fabric dyeing,  
printing **inks**, coatings, and plastic moldings)
- IT Textiles  
(cotton; photochromic spirooxazine and/or spiropyran compns.  
showing good lightfastness for fabric dyeing, printing  
**inks**, coatings, and plastic moldings)
- IT Epoxy **resins**, uses  
(crosslinked, photochromic compn. encapsulated in; photochromic  
spirooxazine and/or spiropyran compns. showing good lightfastness  
for fabric dyeing, printing **inks**, coatings, and plastic  
moldings)
- IT Photochromic materials  
(dyes; photochromic spirooxazine and/or spiropyran compns.  
showing good lightfastness for fabric dyeing, printing  
**inks**, coatings, and plastic moldings)
- IT Acrylic polymers, uses  
(emulsions, fabric dyeing **ink binders**;  
photochromic spirooxazine and/or spiropyran compns. showing good  
lightfastness for fabric dyeing, printing **inks**,  
coatings, and plastic moldings)
- IT Light stabilizers  
(hindered amines; photochromic spirooxazine and/or spiropyran  
compns. showing good lightfastness for fabric dyeing, printing  
**inks**, coatings, and plastic moldings)
- IT Microcapsules  
(photochromic compns. encapsulated in; photochromic spirooxazine  
and/or spiropyran compns. showing good lightfastness for fabric  
dyeing, printing **inks**, coatings, and plastic moldings)
- IT Coating materials  
(photochromic spirooxazine and/or spiropyran compns. showing good  
lightfastness for fabric dyeing, printing **inks**,  
coatings, and plastic moldings)
- IT Molded plastics, uses  
(photochromic spirooxazine and/or spiropyran compns. showing good  
lightfastness for fabric dyeing, printing **inks**,  
coatings, and plastic moldings)

- IT Dyes  
(photochromic; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT Gelatins, uses  
(reaction products with arom. isocyanate prepolymers, photochromic compns. encapsulated in; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT **Inks**  
(silk-screen; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 9010-88-2, Paraloid B 72  
(coating **binder**; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 855526-73-7, NK **Binder AS 83**  
(fabric dyeing **ink binder**; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 9002-88-4, Sholex 6050  
(injection molding; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 41556-26-7, Sanol LS 765 **63843-89-0**, Tinuvin 144  
91788-83-9, ADK Stab LA 52 115055-30-6  
(light stabilizer; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 31326-29-1P 855350-09-3P 855477-95-1P  
(photochromic compn. encapsulated in; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 111-06-8, Butyl palmitate 112-72-1, Myristyl alcohol 629-92-5, Nonadecane 1498-88-0 18312-31-7, Stearyl caprylate 24466-84-0, Heptyl stearate 27333-47-7 29710-31-4, Cetyl caprylate 42232-26-8, Nonyl hexadecanoate 102253-41-8, Neopentyl stearate 114747-44-3 114747-45-4 172208-34-3  
(photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic moldings)
- IT 74-85-1D, Ethylene, polymer 108-05-4D, Vinyl acetate, polymer 88506-95-0, Nikasol ME 702  
(screen printing **ink binder**; photochromic spirooxazine and/or spiropyran compns. showing good lightfastness for fabric dyeing, printing **inks**, coatings, and plastic

moldings)

L21 ANSWER 2 OF 16 HCA COPYRIGHT 2007 ACS on STN

143:9385 Microporous **ink-jet recording**

material. Sismondi, Alain Dominique M. (Ferrania S.p.A., Italy).

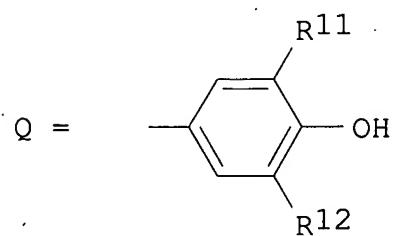
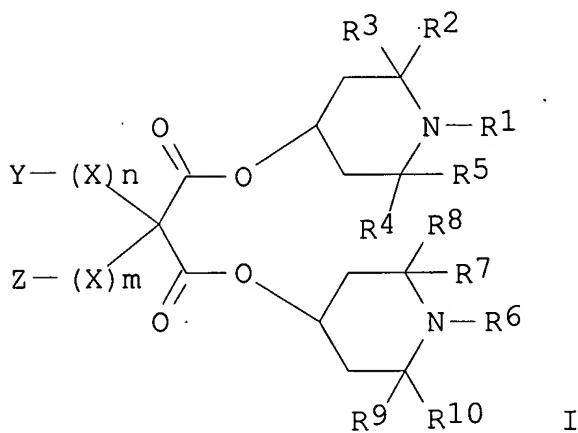
PCT Int. Appl. WO 2005049327 A1 20050602, 27 pp. DESIGNATED STATES:

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,  
 GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,  
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,  
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ,  
 CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU,  
 MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN:

PIXXD2. APPLICATION: WO 2004-EP11819 20041019. PRIORITY: IT

2003-SV41 20031027.

GI



AB A microporous **ink-jet recording**

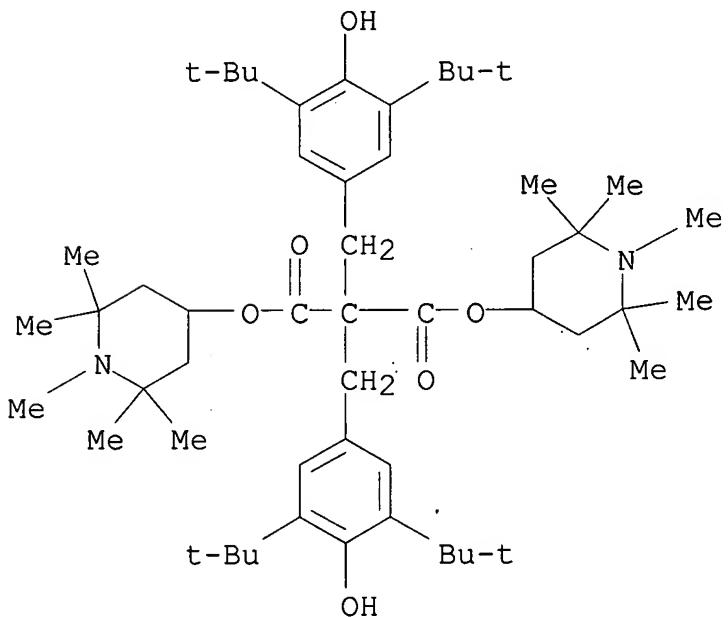
material comprises a support, at least one non-porous layer coated on the support, and at least one porous **ink** receiving

layer coated on at least one non-porous layer, wherein at least one non-porous layer comprises a color fading inhibitor compd.: I or its salt: wherein R1 to R10, being the same or different, each is an alkyl group having from 1 to 5 carbon atoms; X is a divalent linking group; m and n, equal or different, are 0, 1 or 2; Z is Y or is an alkyl group having from 1 to 12 carbon atoms, and Y is Q, wherein R11 and R12 each being an alkyl group having from 1 to 6 carbon atoms.

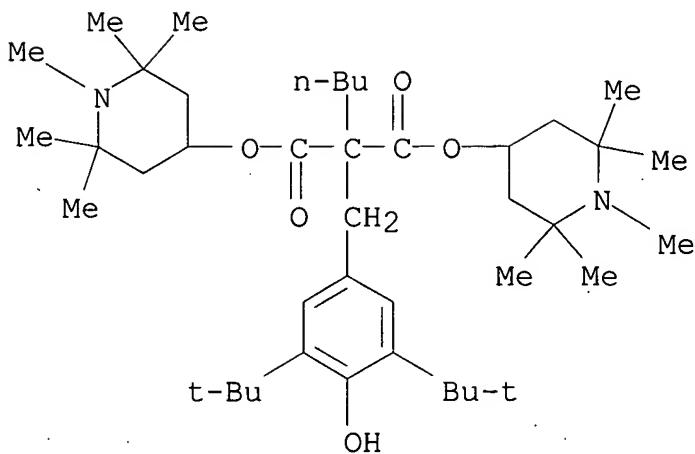
IT 56677-67-9 63843-89-0 158462-94-3  
173071-61-9 731863-29-9 844491-79-8  
852459-28-0

(microporous **ink-jet recording**  
material contg. piperidinyl ester color-fading inhibitors in  
nonporous layers)

RN 56677-67-9 HCA  
CN Propanedioic acid, bis[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

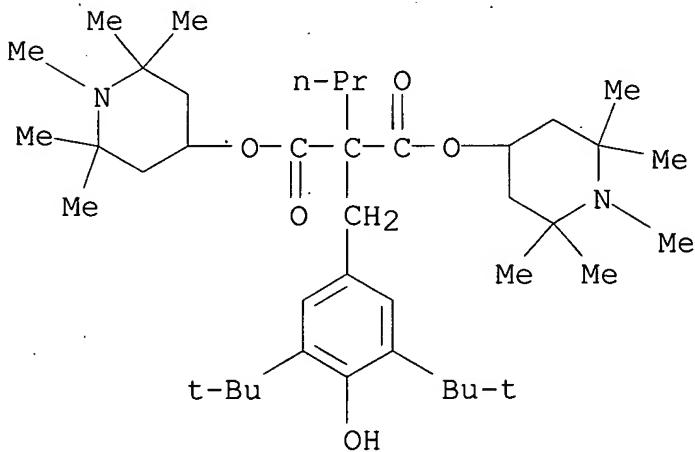


RN 63843-89-0 HCA  
CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methylbutyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



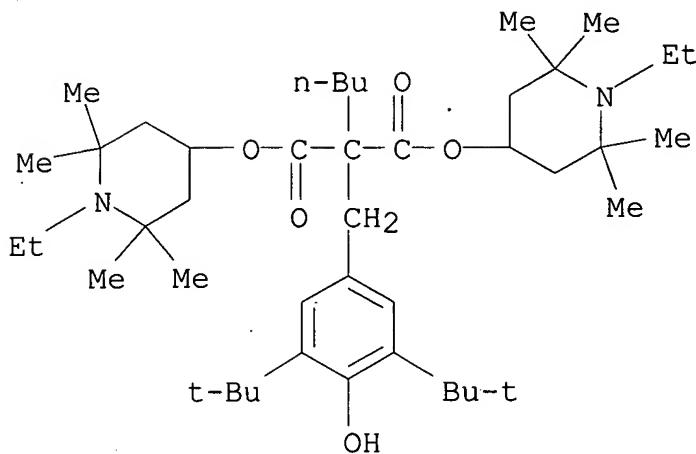
RN 158462-94-3 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]propyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



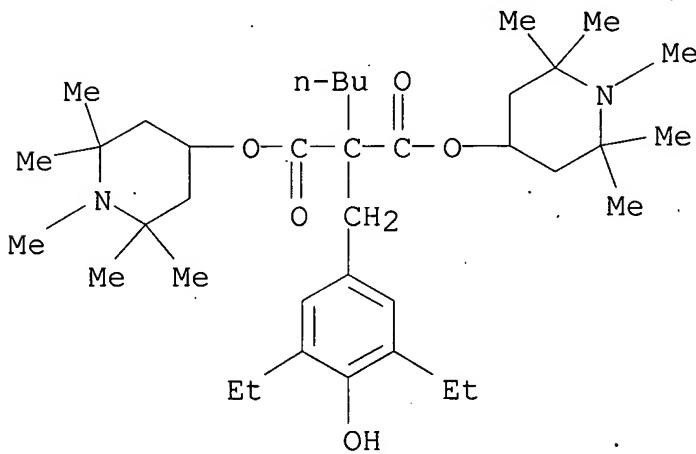
RN 173071-61-9 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1-ethyl-2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



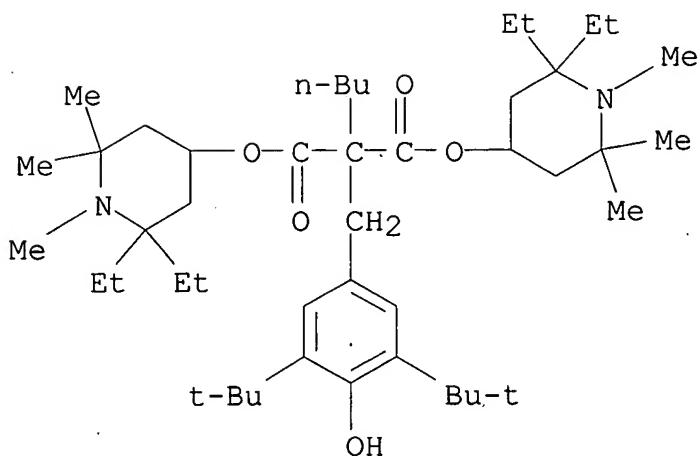
RN 731863-29-9 HCA

CN Propanedioic acid, butyl[(3,5-diethyl-4-hydroxyphenyl)methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 844491-79-8 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(2,2-diethyl-1,6,6-trimethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



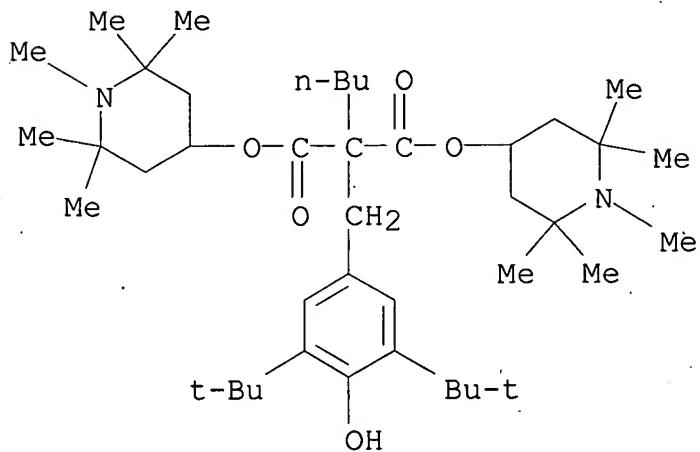
RN 852459-28-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester, sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 63843-89-0

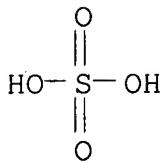
CMF C42 H72 N2 O5



CM 2

CRN 7664-93-9

CMF H2 O4 S



IC ICM B41M005-00  
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
 ST **jet printing** material piperidinyl ester color  
     fading inhibitor  
 IT Fading  
     (inhibitors; microporous **ink-jet**  
         **recording** material contg. piperidinyl ester color-fading  
         inhibitors in nonporous layers)  
 IT Gelatins, uses  
     (nonporous layer **binder**; microporous **ink-**  
         **jet recording** material contg. piperidinyl ester  
         color-fading inhibitors in nonporous layers)  
 IT **Ink-jet recording** sheets  
     (paper; microporous **ink-jet recording**  
         material contg. piperidinyl ester color-fading inhibitors in  
         nonporous layers)  
 IT Paper  
     (**printing, ink-jet**; microporous  
         **ink-jet recording** material contg.  
         piperidinyl ester color-fading inhibitors in nonporous layers)  
 IT 56677-67-9 63843-89-0 158462-94-3  
     173071-61-9 731863-29-9 844491-79-8  
     852459-28-0  
     (microporous **ink-jet recording**  
         material contg. piperidinyl ester color-fading inhibitors in  
         nonporous layers)  
 IT 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone  
     98002-49-4, Airvol 523  
     (nonporous layer **binder**; microporous **ink-**  
         **jet recording** material contg. piperidinyl ester  
         color-fading inhibitors in nonporous layers)

L21 ANSWER 3 OF 16 HCA COPYRIGHT 2007 ACS on STN

143:8573 UV-stabilizing additive compositions for polymer compositions.  
 Malatesta, Vincenzo; Zenner, John; Leshaw, Stanley (Cytec Technology Corp., USA). PCT Int. Appl. WO 2005047384 A1 20050526, 20 pp.  
 DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR,  
 BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,  
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,

NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IS, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-US36602 20041103.

PRIORITY: US 2003-517302P 20031104.

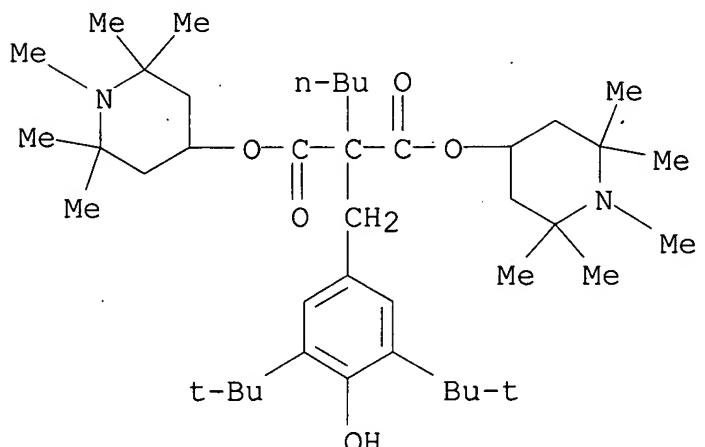
**AB** The compn. comprises an o-hydroxy tris-aryl-s-triazine compd.; a hindered amine compd.; and a hydroxybenzophenone compd., wherein the ratio of the hindered amine compd. to the triazine compd. is 3:1-25:1; and the ratio of the hindered amine compd. to the hydroxybenzophenone compd. is 1:1-25:1. Thus, a low-d polyethylene was mixed with a UV stabilizer contg. 0.900% UV 3346, 0.045% UV 1164 and 0.045% UV 531, extruded, injection molded to give a test piece showing gloss retention 87% after exposuring to UV-light for 3500 h and retained tensile strength 87% after exposuring to UV-light for 2500 h.

**IT 63843-89-0**

(UV stabilizer; UV-stabilizing additive compns. contg. triazines, hindered amines and hydroxybenzophenones)

**RN** 63843-89-0 HCA

**CN** Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



**IC** ICM C08K005-34  
ICS C08K005-13

**CC** 37-6 (Plastics Manufacture and Processing)

**IT Inks**

Paper

Photographic paper

UV stabilizers

(UV-stabilizing additive compns. contg. triazines, hindered amines and hydroxybenzophenones)

IT ABS rubber  
 Alkyd **resins**  
 Aminoplasts  
 Butadiene rubber, uses  
 Epoxy **resins**, uses  
 Natural rubber, uses  
 Phenolic **resins**, uses  
 Polyamides, uses  
 Polycarbonates, uses  
 Polyesters, uses  
 Polyethers, uses  
 Polyimides, uses  
 Polyketones  
 Polyoxymethylenes, uses  
 PolyoxypHENylenes  
 Polysulfones, uses  
 Polythiophenylenes  
 Polyurethanes, uses  
 Synthetic rubber, uses  
 (UV-stabilizing additive compns. contg. triazines, hindered  
 amines and hydroxybenzophenones)  
 IT 131-54-4, 2,2'-Dihydroxy-4,4'-dimethoxybenzophenone 131-55-5,  
 2,2',4,4'-Tetrahydroxybenzophenone 131-56-6, 2,4-  
 Dihydroxybenzophenone 131-57-7, 2-Hydroxy-4-methoxybenzophenone  
 290-87-9D, Triazine, derivs. 1668-53-7, 2-(2,4-Dihydroxyphenyl)-  
 4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine 1843-05-6, UV 531  
 2162-63-2, 2-Hydroxy-4-decyloxybenzophenone 2440-22-4 2725-22-6  
 2985-59-3, 2-Hydroxy-4-dodecyloxybenzophenone 3147-75-9,  
 2-(2-Hydroxy-5-tert-octylphenyl)benzotriazole 3147-76-0,  
 2-(2-Hydroxy-5-tert-butylphenyl)benzotriazole 3147-77-1  
 3846-71-7, 2-(2-Hydroxy-3,5-di-tert-butylphenyl)benzotriazole  
 3896-11-5 6079-76-1, 2-Hydroxy-4-benzyloxybenzophenone  
 13681-75-9 21332-56-9 23328-53-2, 2-(2-Hydroxy-3-dodecyl-5-  
 methylphenyl)benzotriazole 23939-33-5, 2-(2-Hydroxy-3-tert-butyl-5-  
 methylphenyl)benzotriazole 25973-55-1, 2-(2-Hydroxy-3,5-di-tert-  
 amylphenyl)benzotriazole 35344-07-1D, Hydroxybenzophenone, derivs.  
 36437-37-3 40075-75-0 42774-15-2 43221-33-6 59129-18-9,  
 2-[2-Hydroxy-3-(3,4,5,6-tetrahydropthalimidomethyl)-5-  
 methylphenyl]benzotriazole 62782-03-0, Bis(2,2,6,6-  
 tetramethylpiperidin-4-yl)succinate **63843-89-0**  
 64022-57-7 64022-61-3, Tetrakis(2,2,6,6-tetramethylpiperidin-4-yl)-  
 1,2,3,4-butanetetracarboxylate 64337-97-9, 2-Undecyl-7,7,9,9-  
 tetramethyl-1-oxa-3,8-diaza-4-oxospiro[4.5]decane 64338-16-5  
 68716-15-4 70198-29-7, 1-(2-Hydroxyethyl)-2,2,6,6-tetramethyl-4-  
 hydroxypiperidine-succinic acid copolymer 70321-86-7 71029-16-8  
 72058-42-5, N,N'-Bis(2,2,6,6-tetramethylpiperidin-4-  
 yl)hexamethylenediamine-4-tert-octylamino-2,6-dichloro-1,3,5-  
 triazine copolymer 73754-27-5 73936-91-1 76505-58-3

79720-19-7 82451-48-7 82537-67-5, 8-Acetyl-3-dodecyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-2,4-dione 83044-89-7  
 84214-94-8 84268-22-4 85099-50-9 85099-51-0 87925-52-8  
 90751-07-8, UV 3346 91788-83-9 96204-36-3 99473-08-2  
 100631-43-4 100631-44-5, 1,2,3,4-Butanetetracarboxylic acid- $\beta$ , $\beta$ , $\beta'$ , $\beta'$ -tetramethyl-2,4,8,10-tetraoxaspiro[5.5]undecane-3,9-diethanol copolymer, 2,2,6,6-tetramethyl-4-piperidinyl ester 103597-45-1, 2,2'-Methylenebis[4-(1,1,3,3-tetramethylbutyl)-6-benzotriazol-2-ylphenol]] 104564-32-1, 4-Stearyloxy-2,2,6,6-tetramethylpiperidine 106556-36-9, 2-(2-Hydroxy-4-methoxyphenyl)-4,6-diphenyl-1,3,5-triazine 106917-30-0 106917-31-1 107119-91-5 109423-00-9  
 110843-97-5 110843-98-6 114679-28-6 115055-30-6, 1,2,3,4-Butanetetracarboxylic acid- $\beta$ , $\beta$ , $\beta'$ , $\beta'$ -tetramethyl-2,4,8,10-tetraoxaspiro[5.5]undecane-3,9-diethanol copolymer, 1,2,2,6,6-Pentamethyl-4-piperidinyl ester 119530-69-7  
 122035-71-6 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidyl)sebacate 122586-95-2, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidyl)succinate 124172-53-8 130277-45-1  
 131290-55-6 134016-70-9 137658-77-6 137759-38-7 138968-35-1, N-(1-Octyloxy-2,2,6,6-tetramethylpiperidin-4-yl)-N'-dodecyloxalamide 144757-53-9 147315-50-2, 2-(2-Hydroxy-4-hexyloxy)phenyl-4,6-diphenyl-1,3,5-triazine 147783-69-5 148236-55-9 150686-79-6, 2-[(2-Hydroxyethyl)amino]-4,6-bis[N-(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino-1,3,5-triazine 154159-14-5  
 159102-09-7 163109-26-0 164578-16-9 164648-93-5 168921-81-1  
 178905-31-2, 2-(4-Dodecyloxy-2-hydroxypropoxy)-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine 178905-32-3, 2-(4-Tridecyloxy-2-hydroxypropoxy)-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine 180385-57-3 214692-65-6  
 219991-91-0, 4-Benzoyl-2,2,6,6-tetramethylpiperidine 247095-06-3  
 468772-66-9, Ethyl acrylate-methyl methacrylate-2,2,6,6-Tetramethylpiperidin-4-yl acrylate copolymer 474043-37-3  
 474043-40-8, 1,2-Bis(3-aminopropylamino)ethane-4-Butylamino-2,2,6,6-tetramethylpiperidine-2,4,6-Trichloro-1,3,5-triazine copolymer 474043-42-0 474043-43-1 475672-74-3 475672-75-4, Epichlorohydrin-7,7,9,9-Tetramethyl-2-cycloundecyl-1-oxa-3,8-diaza-4-oxospiro[4.5]decane copolymer 566135-26-0D, polymers with C20-24  $\alpha$ -olefin 852312-41-5  
 (UV stabilizer; UV-stabilizing additive compns. contg. triazines, hindered amines and hydroxybenzophenones)

L21 ANSWER 4 OF 16 HCA COPYRIGHT 2007 ACS on STN

139:308740 Cyclized conjugated diene polymer-based polymer compositions with storage and color hue stability. Tanaka, Yasushi; Kitahara, Shizuo (Nippon Zeon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003292682 A **20031015**, 8 pp. (Japanese). CODEN: JKXXAF.

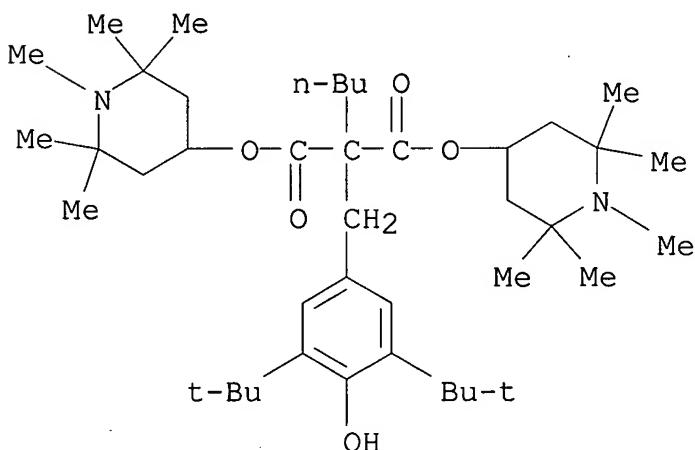
APPLICATION: JP 2002-96699 20020329.

AB Title compns., useful as **binders** for coatings or **inks**, consist of cyclized conjugated diene polymers and/or their modified ones and 2,2,6,6-tetraalkyl-4-piperidyl-contg. compds. A mixt. (A) of 100 parts cyclized polyisoprene (prepd. from treating polyisoprene with p-toluenesulfonic acid) and 0.1 part Tinuvin 144 showed ASTM D 1544-63T yellow index deviation 1.1, vs., 1.4, without the Tinuvin 144; an Irganox 565-contg. A mixt also showed good gelation prevention.

IT **63843-89-0**, Tinuvin 144  
(tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



- IC ICM C08L015-00  
ICS C08F008-00; C08K005-13; C08K005-3435
- CC 39-9 (Synthetic Elastomers and Natural Rubber)  
Section cross-reference(s): 42
- IT Isoprene rubber, preparation  
(cyclized; tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT Isoprene rubber, preparation  
(maleated, cyclized; tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT Cyclization  
Stabilizing agents  
(tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or

**ink binders)**

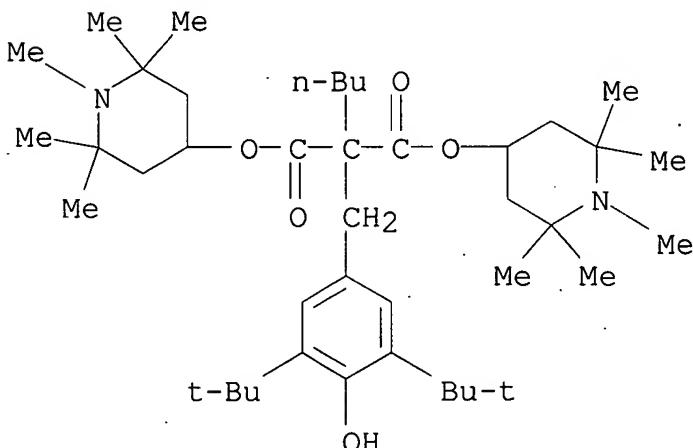
- IT Phenols, uses  
 (tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT 104-15-4, p-Toluenesulfonic acid, uses  
 (cyclization catalyst; tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT 9003-31-0P  
 (isoprene rubber, cyclized; tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT 9003-31-0P  
 (isoprene rubber, maleated, cyclized; tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)  
 )
- IT 108-31-6DP, Maleic anhydride, reaction products with cyclized polyisoprene 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with cyclized polyisoprene  
 (tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)
- IT 991-84-4, Irganox 565 41556-26-7, Tinuvin 765 **63843-89-0**  
 , Tinuvin 144 110553-27-0, Irganox 1520L  
 (tetralkylpiperidyl compd.-contg. cyclized conjugated diene polymer compns. with color hue stability for coating or **ink binders**)

L21 ANSWER 5 OF 16 HCA COPYRIGHT 2007 ACS on STN  
 139:102506 Polymer microparticles containing colorants, their aqueous dispersions, their manufacture, and light-resistant **inks** and coatings having them. Takasu, Mayuko; Takeshita, Kiminari; Shiratani, Toshifumi; Sakamoto, Munehiro (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2003206408 A2 **20030722**, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-301413 20021016. PRIORITY: JP 2001-345634 20011112.

- AB The microparticles with av. diam.  $\leq$ 500 nm comprise oil-sol. dyes, hindered amine light stabilizers, and vinyl polymers. Thus, an emulsion of ethanediol dimethacrylate-methacrylic acid-Me methacrylate-stearyl methacrylate copolymer contg. azo dyes (HSR 2150, HSR 2310) was mixed with a hindered amine (ADK Stab LA 63) to show color fading by UV irradn. 36%.
- IT **63843-89-0**, Tinuvin 144  
 (light stabilizer; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C08L101-00

ICS C08F002-44; C08F006-14; C08K005-00; C08K005-3435; C09B067-02; C09B067-20; C09B067-46; C09D007-12; C09D011-00; C09D201-00

CC 42-10 (Coatings, Inks, and Related Products)

ST microparticle polymer aq dispersion light resistance; colorant hindered amine acrylic dispersion **ink**; coating oil soluble dye light stabilizer

IT Disperse systems

(dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

IT Light stabilizers

(hindered amines; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

IT Amines, uses

(hindered, light stabilizers; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

IT Light-resistant materials

(**inks**; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

IT Coating materials

**Inks**(light-resistant; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

IT Azo dyes

## Cyanine dyes

(oil-sol.; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

- IT 339150-81-1, HSR 2150 560116-57-6, HSR 2310  
(colorant; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)
- IT 25777-71-3P 213819-44-4P, Methyl methacrylate-ADK Stab LA 82 copolymer 560060-64-2P, Ethanediol dimethacrylate-methacrylic acid-methyl methacrylate-stearyl methacrylate copolymer  
(dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)
- IT 41556-26-7, Sanol LS 765 **63843-89-0**, Tinuvin 144  
100631-44-5, ADK Stab LA 68 115055-30-6, ADK Stab LA 63  
122586-52-1, Tinuvin 123  
(light stabilizer; dispersions of dye-contg. acrylic **resin** microparticles for light-resistant aq. **inks** and coatings)

L21 ANSWER 6 OF 16 HCA COPYRIGHT 2007 ACS on STN

137:338627 Polymeric articles containing hindered amine stabilizers based on multi-functional carbonyl compounds. Sassi, Thomas P. (Cytec Technology Corp., USA). U.S. Pat. Appl. Publ. US 2002161075 A1 **20021031**, 40 pp., Cont.-in-part of U.S. Ser. No. 704,840. (English). CODEN: USXXCO. APPLICATION: US 2001-87266 20011025. PRIORITY: US 2000-704840 20001103.

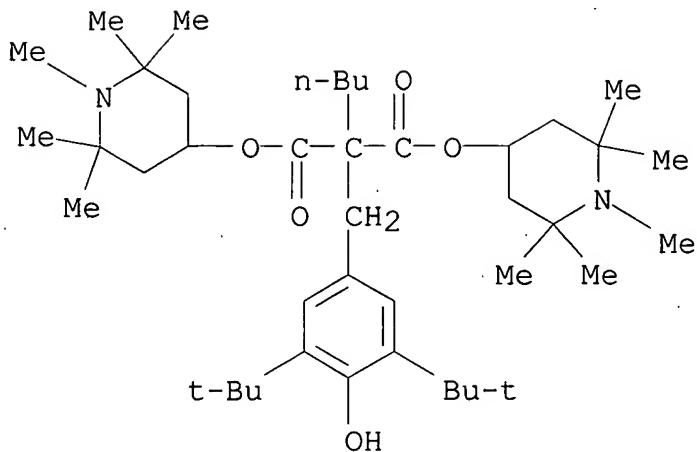
AB Polymeric articles contg. at least one polymeric material and a sufficient amt. of at least one novel hindered amine stabilizers to inhibit at least one of photo- or thermal degrdn. The hindered amine light stabilizer may be a monomeric or an oligomeric hindered amine light stabilizer. 2,2,6,6-Tetramethylpiperidin-4-yl 6-(2,2,6,6-tetramethyl-4-piperidinoxy carbonyl amino)hexanoate was prep'd. and used in stabilization of polypropylene.

IT **63843-89-0**

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C08K005-34

INCL 524099000

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 42, 62, 74

IT Antioxidants

Cosmetics

Dyes

Heat stabilizers

**Inks**

Light stabilizers

Paper

Photographic paper

UV stabilizers

(polymeric articles contg. hindered amine stabilizers based on  
multi-functional carbonyl compds.)IT Alkyd **resins**

Aminoplasts

Epoxy **resins**, properties

Linear low density polyethylenes

Natural rubber, properties

Phenolic **resins**, properties

Polyamides, properties

Polycarbonates, properties

Polyesters, properties

Polyethers, properties

Polyimides, properties

Polyketones

Polyolefins

Polyoxymethylene, properties

Polyoxyphenylenes

Polysulfones, properties

Polythiophenylenes

Polyurethanes, properties

Synthetic rubber, properties

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

- IT 106-89-8D, Epichlorohydrin, reaction products with  
 7,7,9,9-tetramethyl-2-cycloundecyl-1-oxa-3,8-diaza-4-  
 oxospiro[4.5]decane 128-37-0, 2,6-Di-tert-butyl-4-methylphenol,  
 uses 131-56-6, 2,4-Dihydroxybenzophenone 131-57-7,  
 2-Hydroxy-4-methoxybenzophenone 976-56-7, Diethyl-3,5-di-tert-  
 butyl-4-hydroxybenzylphosphonate 1470-79-7 1668-53-7,  
 2-(2,4-Dihydroxyphenyl)-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine  
 1709-70-2, 1,3,5-Tris(3,5-di-tert-butyl-4-hydroxybenzyl)-2,4,6-  
 trimethylbenzene 1843-03-4, 1,1,3-Tris(5-tert-butyl-4-hydroxy-2-  
 methylphenyl)butane 1843-05-6, 2-Hydroxy-4-octyloxybenzophenone  
 2162-63-2, 2-Hydroxy-4-decyloxybenzophenone 2440-22-4,  
 2-(2'-Hydroxy-5'-methylphenyl)-benzotriazole 2725-22-6  
 2985-59-3, 2-Hydroxy-4-dodecyloxybenzophenone 3135-18-0,  
 Dioctadecyl-3,5-di-tert-butyl-4-hydroxybenzylphosphonate  
 3147-75-9, 2-(2'-Hydroxy-5'-(1,1,3-tetramethylbutyl)phenyl)benzotr  
 iazole 3147-76-0 3147-77-1 3846-71-7 3864-99-1,  
 2-(3',5'-Di-tert-butyl-2'-hydroxyphenyl)-5-chlorobenzotriazole  
 3896-11-5 6079-76-1, 2-Hydroxy-4-benzyloxybenzophenone 6131-38-0  
 10176-09-7 13681-75-9 23128-74-7 23328-53-2 25973-55-1  
 27676-62-6, 1,3,5-Tris(3,5-di-tert-butyl-4-  
 hydroxybenzyl)isocyanurate 32687-78-8 35958-30-6,  
 2,2'-Ethylidene-bis(4,6-di-tert-butylphenol) 36437-37-3  
 40075-75-0 40601-76-1 41556-26-7, Bis(1,2,2,6,6-  
 pentamethylpiperidin-4-yl) sebacate 52829-07-9,  
 Bis(2,2,6,6-tetramethylpiperidin-4-yl) sebacate 62782-03-0,  
 Bis(2,2,6,6-tetramethylpiperidin-4-yl) succinate **63843-89-0**  
 64022-57-7, Tris(2,2,6,6-tetramethylpiperidin-4-yl)  
 nitrilotriacetate 64022-61-3, Tetrakis(2,2,6,6-  
 tetramethylpiperidin-4-yl)-1,2,3,4-butanetetracarbox ylate  
 64337-97-9 69851-61-2 70198-29-7, 1-(2-Hydroxyethyl)-2,2,6,6-  
 tetramethyl-4-hydroxypiperidine-succinic acid copolymer 70321-86-7  
 71029-16-8 72058-42-5 79720-19-7 82451-48-7 82537-67-5,  
 8-Acetyl-3-dodecyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-  
 2,4-dione 83044-89-7 83044-90-0 83044-91-1 84268-22-4  
 84268-23-5 84268-33-7 104564-32-1, 4-Stearyloxy-2,2,6,6-  
 tetramethylpiperidine 106556-36-9, 2-(2-Hydroxy-4-methoxyphenyl)-  
 4,6-diphenyl-1,3,5-triazine 106917-30-0 106917-31-1  
 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-  
 yl) sebacate 122586-95-2 131290-55-6 131747-52-9 137658-77-6  
 144757-53-9 145983-67-1 147315-50-2 148236-55-9 154825-62-4  
 168921-81-1 178905-31-2 214692-65-6 219991-91-0 222557-48-4  
 474043-37-3 474043-38-4 474043-40-8 474043-41-9D, reaction  
 products with epichlorohydrin 474043-42-0 474043-43-1  
 474043-44-2

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

L21 ANSWER 7 OF 16 HCA COPYRIGHT 2007 ACS on STN

128:141759 Flexible polypropylene **resin** compositions, films or sheets made therefrom, and surface-protective films or sheets made therefrom. Tamura, Satoshi; Azuma, Yutaka (Idemitsu Petrochemical Co., Ltd., Japan; Tamura, Satoshi; Azuma, Yutaka). PCT Int. Appl. WO 9805714 A1 **19980212**, 50 pp. DESIGNATED STATES: W: KR, US; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1997-JP2704 19970804. PRIORITY: JP 1996-206742 19960806; JP 1996-280680 19961023.

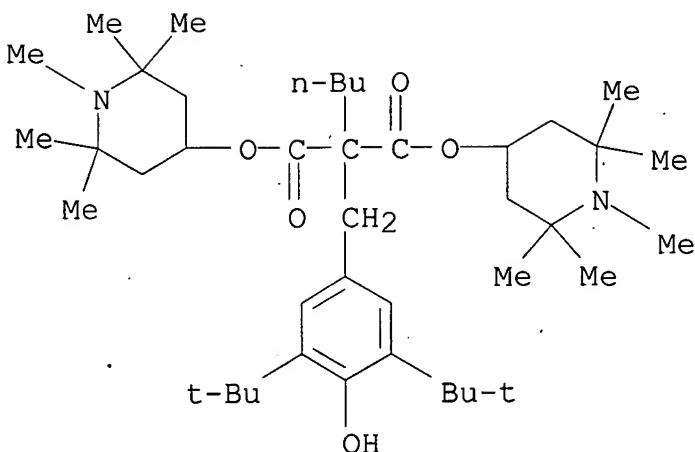
AB The **resin** compn. comprises 100 parts of a flexible polypropylene **resin** exhibiting a peak melting temp. of  $\geq 150^\circ$  (detd. by DSC) and a modulus in tension of 200-700 MPa, and 0.05-5 parts of a hindered amine light stabilizer. The flexible polypropylene **resin** is preferably comprises (A) 100-20% of polypropylene having a pentad fraction 20-60% in the <sup>13</sup>C-NMR spectrometry and a melting enthalpy of 10-100 J/g (detd. by DSC), and/or a propylene copolymer contg.  $\leq 4\%$  of other olefin units, and (B) 0-80% of a propylene copolymer contg. 10-80% of non-propylene olefin units. The **resin** compns. are useful for the prodn. of molded articles, films and sheets, particularly surface-protective films or sheets on which adhesive layers, **ink** layers or substrates are to be formed, and the molded articles, films or sheets made from the compns. are improved in weathering resistance.

IT **63843-89-0**, Tinuvin 144

(light stabilizer; flexible polypropylene compns. for films or sheets)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C08L023-10  
 ICS C08K005-17; C08K005-3475; C08J005-18; C09J007-02  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 35, 37  
 IT 41556-26-7, Sanol LS 765 52829-07-9, Sanol LS 770  
**63843-89-0**, Tinuvin 144 71878-19-8, Chimassorb 944LD  
 91788-83-9, ADK Stab LA 52 106990-43-6, Chimassorb 119FL  
 122586-52-1, Tinuvin 123  
 (light stabilizer; flexible polypropylene compns. for films or sheets)

L21 ANSWER 8 OF 16 HCA COPYRIGHT 2007 ACS on STN  
 125:117628 Pressure-sensitive transferring image-protective coverings containing an ultraviolet absorber and method for its use. Abe, Tsutomu; Suzuki, Eiichi; Sakaki, Mamoru; Noguchi, Hiromichi; Matsuo, Keisuke; Hirose, Mifune; Moriya, Kenichi (Canon K. K., Japan). Eur. Pat. Appl. EP 715965 A1 **19960612**, 21 pp. DESIGNATED  
 STATES: R: CH, DE, FR, GB, IT, LI. (English). CODEN: EPXXDW.  
 APPLICATION: EP 1995-119412 19951208. PRIORITY: JP 1994-305819  
 19941209; JP 1995-305387 19951124.  
 AB A pressure-sensitive transferring protective covering material is prepd. which comprises at least (a) a first flexible substrate, (b) an adhesive layer, (c) a solid **resin** layer, and (d) a second flexible substrate which are stacked in the named order, wherein said first flexible substrate (a) has a peel force of 30-120 g/in. against said adhesive layer (b), said adhesive layer (b) contains a hindered amine series light stabilizer and has a cohesion of 500-1500 g/in., said solid **resin** layer (c) comprises a transparent **resin** layer contg. a UV absorber and has Tg ≥ 50°, and said second flexible substrate (d) has a peel force of 120 g/in. to 400 g/in. against said solid **resin** layer (c). A method for protecting and covering a

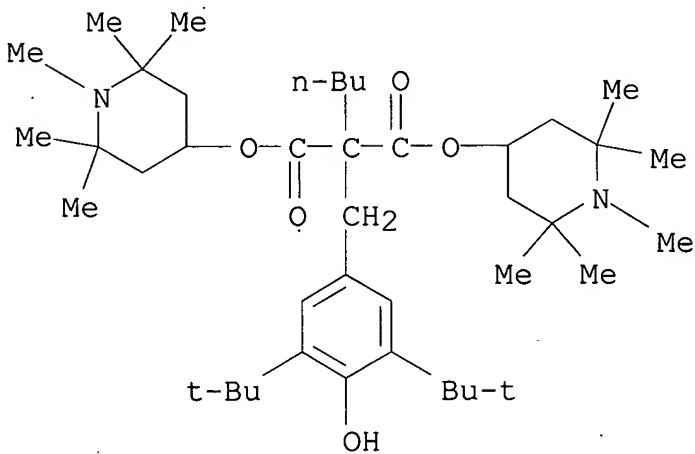
print formed on an object uses said pressure-sensitive transferring protective covering material. Thus, an acrylic adhesive layer contg. Tinuvin 123 light stabilizer was applied to a PET substrate to give layers b-a, and a solid Me methacrylate-vinylmethoxysilane copolymer contg. Tinuvin 384 UV absorber was applied to another PET substrate to give layers c-d. The pressure-sensitive transferring protective covering material was formed by superposing the surface of the adhesive layer from b-a onto the surface of the solid **resin** layer of c-d. A variety of **jet-printed** paper (using a variety of colors) were laminated through the adhesive layer of the image protective coating materials. The protective covering material enabled marked prevention of UV deterioration of the dye print, and the covered print was maintained in a desirable state without light deterioration even upon storing over a long period of time under severe environmental conditions.

IT 63843-89-0, Tinuvin 144

(light stabilizer; in UV absorber-contg. pressure-sensitive transfer protective covering for preventing light deterioration of print)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M007-00

CC 42-11 (Coatings, Inks, and Related Products)

Section cross-reference(s): 43, 74

IT 41556-26-7, Tinuvin 292 63843-89-0, Tinuvin 144

122586-52-1, Tinuvin 123

(light stabilizer; in UV absorber-contg. pressure-sensitive transfer protective covering for preventing light deterioration of print)

IT 179386-01-7 179386-03-9 179386-05-1 179767-00-1  
 (solid **resin** layer; in UV absorber-contg.  
 pressure-sensitive transfer protective covering for preventing  
 light deterioration of print)

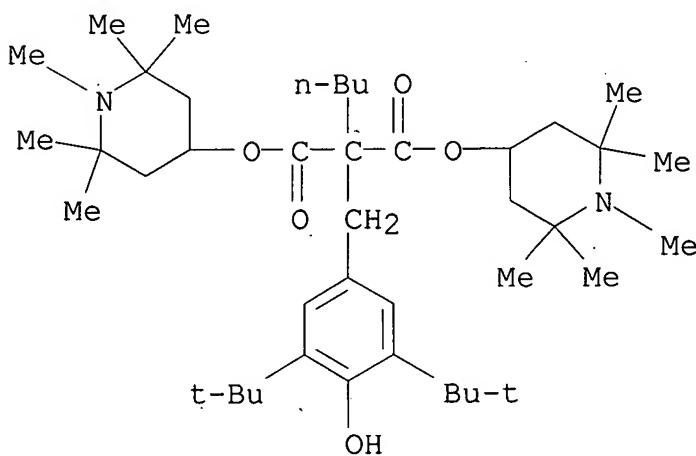
L21 ANSWER 9 OF 16 HCA COPYRIGHT 2007 ACS on STN  
 123:343733 Reversible thermochromic composition for paints and  
**inks**. Shibahashi, Yutaka; Sugai, Jun (Pilot Ink Co., Ltd.,  
 Japan). Eur. Pat. Appl. EP 659582 A1 **19950628**, 28 pp.  
 DESIGNATED STATES: R: DE, FR, GB, IT. (English). CODEN: EPXXDW.  
 APPLICATION: EP 1994-309664 19941222. PRIORITY: JP 1993-347755  
 19931224; JP 1994-288742 19941028.

AB A reversible thermochromic compn. develops fluorescent color of yellow, yellowish orange, orange reddish orange, or red with a high color d. and high color brightness, yet gives no residual color under noncolor-developing conditions, and has remarkably improved light resistance. The reversible thermochromic compn. comprises a solubilized mixt. of 3 components of (a) an electron-donating color-developing org. compd. selected from pyridine-, quinazoline-, and bis-quinazoline-type of compd., (b) an electron-accepting compd. for the electron-donating color-developing org. compd., and (c) a reaction medium or addnl. a stabilizer.

IT **63843-89-0**  
 (epoxy **resin** encapsulated thermochromic compn. contg.;  
 reversible thermochromic compn. for paints and **inks**).

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-28  
 ICS C09K009-02

CC 42-12 (Coatings, Inks, and Related Products)

ST Section cross-reference(s): 38  
 reversibly electron exchange reaction thermochromic compn;  
 reversible thermochromic compn **ink**; microencapsulated  
 thermochromic pigment compn

IT Coating materials  
 (reversible thermochromic compn. for paints and **inks**)

IT Pigments  
 (reversibly thermochromic; reversible thermochromic compn. for  
 paints and **inks**)

IT **Inks**  
 (silk-screen, reversible thermochromic compn. for paints and  
**inks**)

IT 70-30-4, 2,2'-Methylenebis(3,4,6-trichlorophenol) 77-40-7,  
 2,2-Bis(4-hydroxyphenyl)butane 79-94-7, Tetrabromobisphenol A  
 80-05-7, 2,2-Bis(4-hydroxyphenyl)propane, uses 80-09-1,  
 Bis(4-hydroxyphenyl)sulfone 97-23-4, 2,2'-Methylene-bis(4-  
 chlorophenol) 110-36-1, Butyl myristate 112-47-0,  
 1,10-Decanediol 112-72-1, Myristyl alcohol 112-92-5, Stearyl  
 alcohol 123-95-5, Butyl stearate 131-54-4 538-24-9, Trilaurin  
 540-08-9, 9-Heptadecanone 1166-52-5, Lauryl gallate 1478-61-1,  
 2,2-Bis(4-hydroxyphenyl)hexafluoropropene 2664-63-3,  
 Bis(4-hydroxyphenyl)sulfide 3147-76-0 3896-11-5 6683-19-8  
 6807-17-6, 2,2-Bis(4-hydroxyphenyl)-4-methylpentane 10254-72-5  
 13373-83-6, Stearyl butyrate 25973-55-1 26275-88-7 28984-20-5  
 29312-59-2 34689-06-0, Octadecyl decanoate 36443-68-2  
 36653-82-4, Cetyl alcohol 42231-48-1, Nonyl caprate 52829-07-9  
 55620-50-3 **63843-89-0** 73947-30-5, 2-Ethylhexyl decanoate  
 79916-30-6 79916-35-1 79916-43-1 82537-67-5 84745-16-4  
 84754-34-7 85099-51-0 89331-94-2 95235-30-6 102065-11-2  
 102253-41-8, Neopentyl stearate 144190-25-0 170908-21-1  
 170908-22-2 170908-23-3 170908-24-4 170908-25-5 170908-26-6  
 170908-27-7  
 (epoxy **resin** encapsulated thermochromic compn. contg.;  
 reversible thermochromic compn. for paints and **inks**)

L21 ANSWER 10 OF 16 HCA COPYRIGHT 2007 ACS on STN

122:119162 Heat-mode image receiving material and secondary transfer  
 method to give sharp and high-resolution images on plain paper with  
 rough surface. Kawakami, Sota; Nakajima, Atsushi; Nakatani, Koichi  
 (Konishiroku Photo Ind, Japan). Jpn. Kokai Tokkyo Koho JP 06210974  
 A **19940802** Heisei, 11 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1993-4183 19930113.

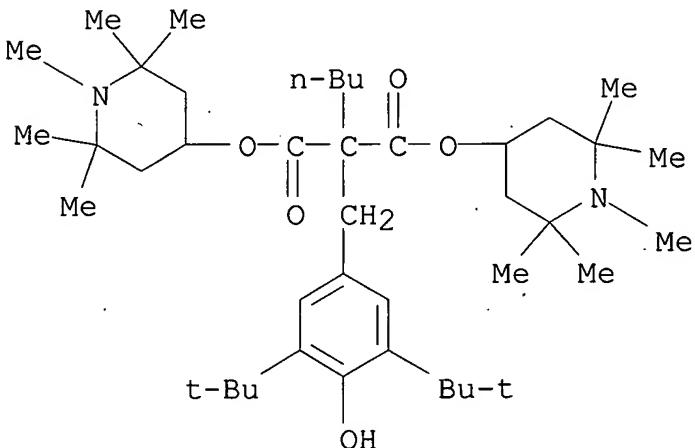
AB In the title image receiving material capable of imagewise receiving  
**ink** layer of a recording material and secondarily  
 transferring the image to a plain paper, the receiving layer or a  
 layer under the receiving layer contains a compn. capable of polymg.  
 or depolymg. on irradiating or heating. The secondary transfer  
 method is also claimed.

IT 63843-89-0, Tinuvin 144

(photopolymn. initiator contained in image receiving layer for heat-mode image receiving material).

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-40

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 25213-39-2, Himer SBM 100 99251-81-7, Himer TB 1000  
(**binder** contained in image receiving layer for heat-mode image receiving material)IT 63843-89-0, Tinuvin 144 106990-43-6, Chimassorb 119FL  
141714-63-8

(photopolymn. initiator contained in image receiving layer for heat-mode image receiving material)

L21 ANSWER 11 OF 16 HCA COPYRIGHT 2007 ACS on STN

115:160644 Light-resistant photosensitive **resin** compositions.

Fukunishi, Toshika; Oguri, Takeshi (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 03087744 A

19910412 Heisei, 13 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1989-222817 19890831.

AB The title compns. which do not yellow or discolor under UV or visible light, useful for coatings, moldings, printing **inks**, printing plates, etc., comprise radical polymerizable compds. 100, photoinitiators 0.1-10, hindered amine light stabilizers 0.1-10, and hindered phenol photopolymn. inhibitors 0.1-10 parts. Thus, polymn. of poly(propylene adipate) glycol 500, polypropylene glycol 500, and TDI 78.7 parts and subsequent treatment with 20 parts 2-hydroxypropyl methacrylate gave a polyurethane acrylate, 76 parts

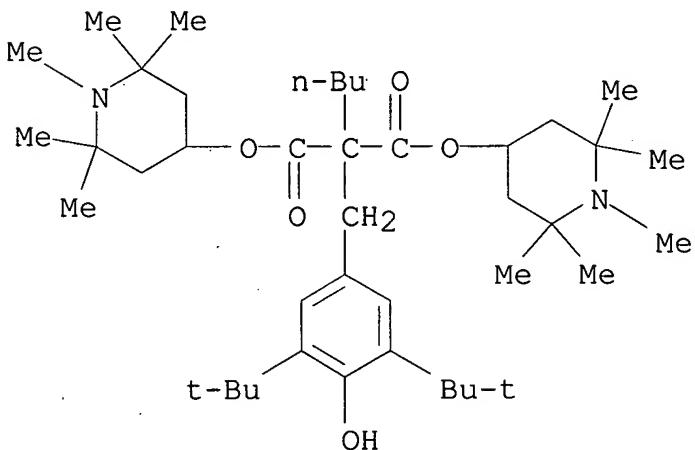
of which was blended with lauryl methacrylate 9.6, polypropylene glycol monomethacrylate 7.3, hydroxypropyl methacrylate 3.3, tetraethylene glycol dimethacrylate 2.5, trimethylolpropane trimethacrylate 1.3, 2,2'-dimethoxy-2-phenylacetophenone 0.8, bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (I) 1.0, and 3,9-bis[1,1-dimethyl-2-[ $\beta$ -(3-tert-butyl-4-hydroxy-5-methylphenyl)propionyloxy]ethyl]-2,4,8,10-tetraoxaspiro[5.5]undecane (II) 0.1 part, then cured to give a test piece showing yellowing degree 10% after 550-h visible ray-irradn. and 20% after 150-h UV-irradn., vs. 28 and 20, resp., without I and II.

IT **63843-89-0**

(light stabilizers, photosensitive polymer compns. contg., for discoloration prevention)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-027

CC 37-6 (Plastics Manufacture and Processing)

IT 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate

**63843-89-0** 64022-61-3, Tetrakis(2,2,6,6-tetramethyl-4-piperidyl) 1,2,3,4-butanetetracarboxylate 73754-27-5 107119-91-5  
136462-13-0

(light stabilizers, photosensitive polymer compns. contg., for discoloration prevention)

L21 ANSWER 12 OF 16 HCA COPYRIGHT 2007 ACS on STN

108:46894 Print protective materials. Yamamoto, Mayumi; Suzuki, Eiichi; Akitani, Takashi; Togano, Shigeo (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 62130846 A **19870613** Showa, 7 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-271350 19851204.

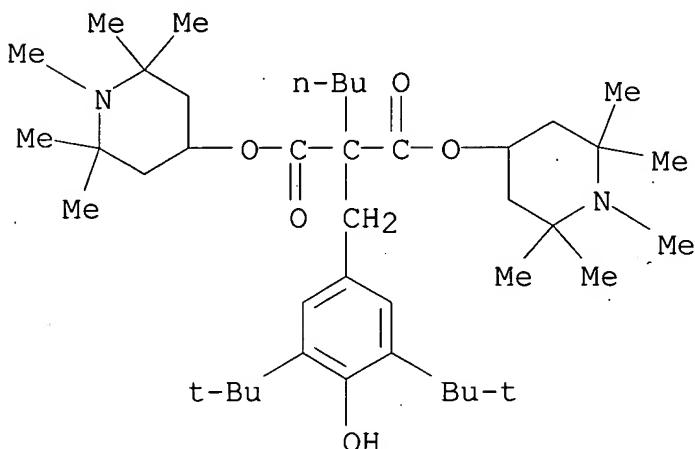
AB A printed matter protective material comprises a support and a transferable layer composed of a butyral **resin** (d.p. 150-900; butyral group 60 mol%) layer contg. an UV absorber and an acrylic **resin** layer contg. a light-stabilizer. The protective material is useful for laminating a protective layer on an **ink-jet printed** paper.

IT **63843-89-0**, Tinuvin 144

(peelable transfer layer contg., as light stabilizer, in printed matter protective materials)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B32B027-30

ICS B32B007-06; B32B027-18; B32B027-30

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42

ST printed matter protective material; transfer sheet protective coating; butyral **resin** transfer sheet; acrylic **resin** transfer sheet

IT **Printing**, nonimpact

(**ink-jet**, **prints** by, protective coatings for)

IT 52829-07-9 **63843-89-0**, Tinuvin 144 70198-29-7

(peelable transfer layer contg., as light stabilizer, in printed matter protective materials)

L21 ANSWER 13 OF 16 HCA COPYRIGHT 2007 ACS on STN

107:87321 Protective lamination materials for printed matter. Yamamoto, Mayumi; Suzuki, Eiichi; Yanagiba, Rieko; Togano, Shigeo; Kimura, Toshiaki (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 62059076 A

**19870314** Showa, 9 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1985-198681 19850910.

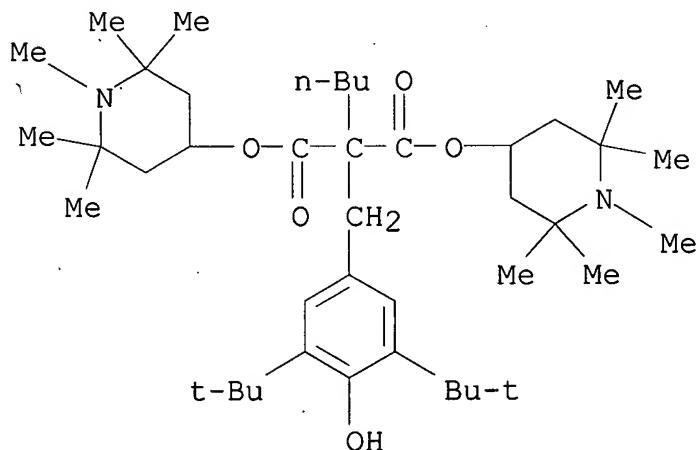
AB The title protective materials consisting of a substrate and a releasable multilayer transfer-recording layer laminated on the substrate essentially contain a fluorescent brightener, a UV absorber, and a light stabilizer. The materials are usable for lamination of **ink-jet recorded** images.  
 A layer contg. Uvitex OB (fluorescent brightener) in Dianal LR216 (acrylic **resin**) and a layer contg. Tinuvin 320 (UV absorber) and Tinuvin 144 (light stabilizer) in Dianal LR216 were laminated successively on a poly(ethylene terephthalate) film. The material was laminated on an **ink-jet recorded** image and then the film was peeled off to give a laminated image, which had a clear background and sufficient lightfastness.

IT **63843-89-0**, Tinuvin 144

(light stabilizer, protective material contg., for **ink-jet images**)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-00

ICS B32B007-02; B32B007-06

ICA B41J003-04; B41J029-00; B41J031-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST protective material lamination **inkjet** image; fluorescent brightener protective material lamination; absorber UV protective material lamination; light stabilizer **inkjet** image lamination

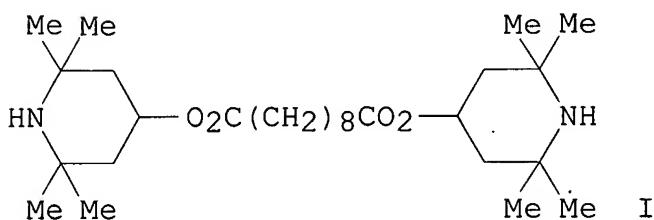
IT Coating materials

(protective material contg. acrylic, for **ink-jet** copies)

- IT Fluorescent brighteners  
 Light stabilizers  
 (protective material contg., for **ink-jet** images)  
 IT 7128-64-5, Uvitex OB  
 (fluorescent brightener, protective material contg., for **ink-jet** images)  
 IT 52829-07-9 **63843-89-0**, Tinuvin 144  
 (light stabilizer, protective material contg., for **ink-jet** images)  
 IT 131-54-4, Tinuvin 320 3846-71-7 58834-33-6, Dianal LR469  
 64735-30-4, Dianal LR216  
 (protective material contg., for **ink-jet** images)

L21 ANSWER 14 OF 16 HCA COPYRIGHT 2007 ACS on STN  
 107:87267 Desensitizer composition for a color developer sheet. Sano,  
 Shojiro; Saeki, Keiso (Fuji Photo Film Co., Ltd., Japan). Brit. UK  
 Pat. Appl. GB 2175934 A **19861210**, 14 pp. (English).  
 CODEN: BAXXDU. APPLICATION: GB 1986-12755 19860527. PRIORITY: JP  
 1985-117916 19850531.

GI

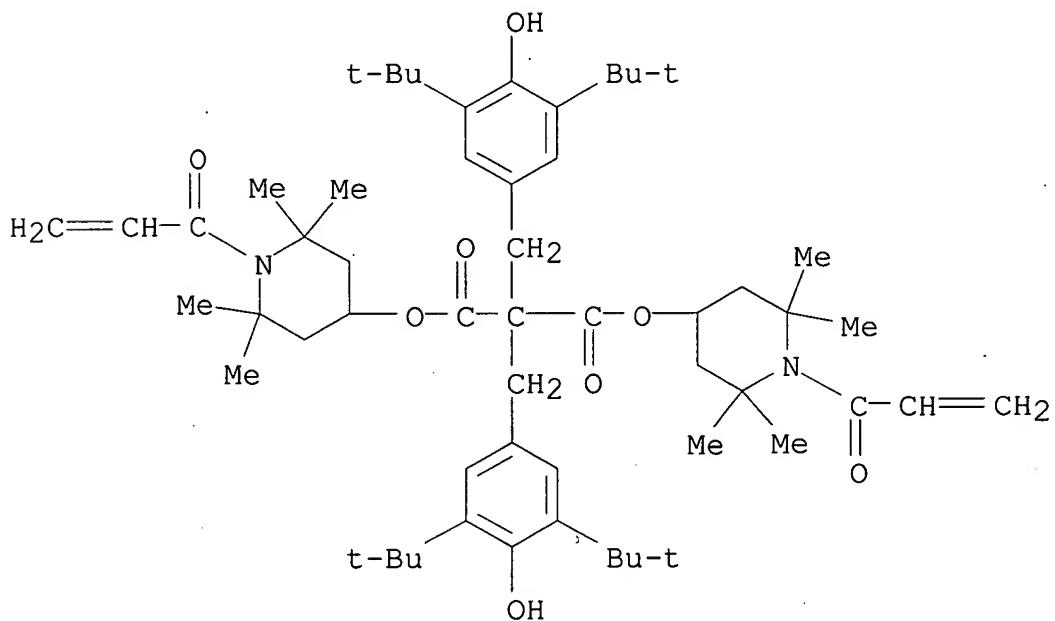


AB Desensitizer compns. for reducing or eliminating the ability of a color developer to produce a color by reaction with a colorless color former are composed of a desensitizer, a 2,2,6,6-tetramethylpiperazine or 2,2,6,6-tetramethylpiperidine deriv., a high mol. wt. **binder**, and a pigment. The components are mixed and melted and the compn. is coated by printing onto nonimage areas of a color developer sheet. A rosin-modified maleic acid **resin** and C18H37N[(C2H4O)8H]2 were melted by heating, TiO2 added, and finally I added to give a desensitizing **ink** with good desensitizing characteristics.

- IT **63941-39-9**  
 (desensitizer compns. contg., for color developer sheet for floran deriv. contg. pressure-sensitive copying paper)

RN 63941-39-9 HCA

CN Propanedioic acid, bis[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-, bis[2,2,6,6-tetramethyl-1-(1-oxo-2-propenyl)-4-piperidinyl] ester (9CI) (CA INDEX NAME)

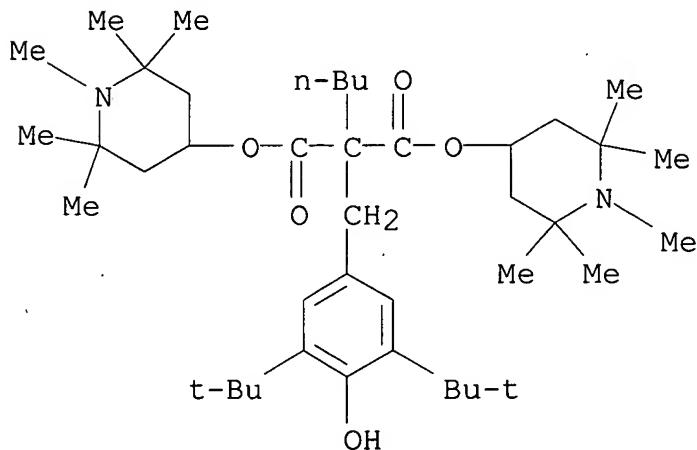


IT 63843-89-0

(desensitizer compns. contg., for color developer sheet for  
fluoran deriv.-contg. pressure-sensitive copying paper)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-22

CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 26635-92-7 41556-26-7 **63941-39-9** 64022-61-3  
70198-29-7 90310-61-5 90751-07-8  
(desensitizer compns. contg., for color developer sheet for floran deriv. contg. pressure-sensitive copying paper)  
IT 110-16-7D, Maleic acid, polymers, rosin-modified 7664-41-7, Ammonia, uses and miscellaneous 11111-34-5 13463-67-7, Titanium dioxide, uses and miscellaneous 25322-69-4, Polypropylene glycol 26275-88-7 52829-07-9 **63843-89-0** 64022-57-7  
(desensitizer compns. contg., for color developer sheet for fluoran deriv.-contg. pressure-sensitive copying paper)

L21 ANSWER 15 OF 16 HCA COPYRIGHT 2007 ACS on STN

107:31301 Protective materials for **ink-jet**

**recording prints.** Yamamoto, Mayumi; Suzuki, Eiichi; Yanagiba, Rieko; Togano, Shigeo; Kimura, Toshiaki (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 61230975 A **19861015** Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-71904 19850406.

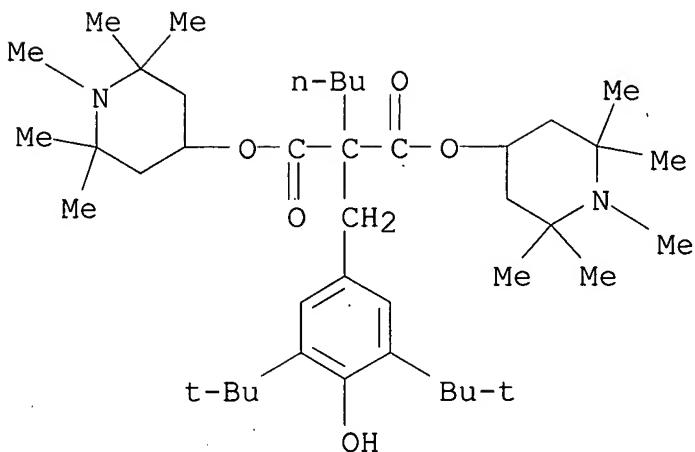
AB The protective materials are prep'd. by forming a peelable transfer layer contg. at least a light stabilizer and an UV absorber on a substrate. The protective materials are useful for laminating prints obtained by using **ink-jet**

**recording** process, and the laminated images exhibit good water resistance, abrasion resistance, solvent resistance, and lightfastness, and the resultant prints have a high brightness. A PET film was coated with a compn. contg. Dianal LR-163 (40% acrylic **resin** soln. in PhMe), Cyasorb UV-24 (UV absorber), and Tinuvin 144 (light stabilizer) to give a protective material. The protective material was then laminated on a print obtained by using a color **ink-jet printer** and the film removed to give a laminate, the images of which showed good lightfastness.

IT **63843-89-0**, Tinuvin 144  
(coatings, protective, on **ink-jet**  
**recording prints**)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



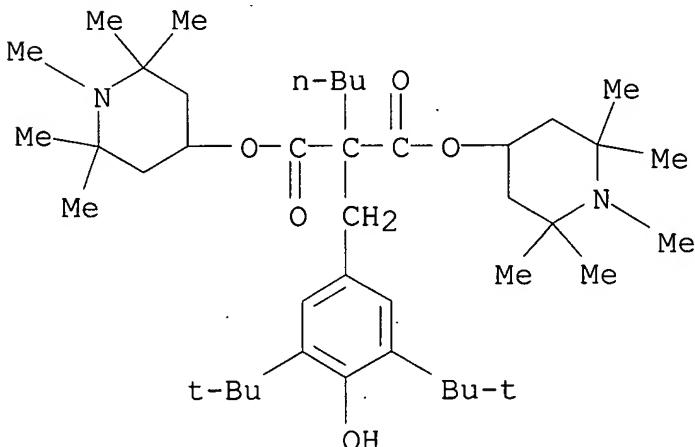
- IC ICM B41M005-00  
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST UV absorber protective material recording; light stabilizer protective material recording; transfer layer protective material recording; **ink jet recording**  
 protective layer  
 IT **Printing**, nonimpact  
     (**ink-jet**, protective materials for prints from)  
 IT 131-53-3, Cyasorb UV-24 131-54-4, Uvinul D-49 41556-26-7, Sanol 292 52829-07-9 53023-92-0, Dianal LR-472 58834-33-6, Dianal LR-469 **63843-89-0**, Tinuvin 144 70321-86-7, Tinuvin 900 109116-82-7  
     (coatings, protective, on **ink-jet recording prints**)  
 L21 ANSWER 16 OF 16 HCA COPYRIGHT 2007 ACS on STN  
 107:31300 Protective materials for **ink-jet recording prints**. Yamamoto, Mayumi; Suzuki, Eiichi; Yanagiba, Rieko; Togano, Shigeo; Kimura, Toshiaki (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 61230976 A **19861015** Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-71905 19850406.  
 AB Protective materials was prep'd. by forming on a substrate a peelable transfer layer comprising a layer contg. a UV absorber and another layer contg. a light stabilizer. The protective materials are useful for laminating prints obtained by using **ink-jet recording process**, the laminated images exhibit good water resistance, abrasion resistance, solvent resistance, and lightfastness, and the resultant prints have high brightness. Thus, a PET film was coated with a compn. contg. Dianal

LR-216 (I) (40% acrylic **resin** soln. in PhMe) and Tinuvin 326 (UV absorber) and then overcoated with a compn. contg. I and Tinuvin 144 (light stabilizer) to give a protective material. The protective material was laminated on a print obtained by using a color **ink-jet printer** and the film removed to give a laminate, of which the images showed good lightfastness.

IT **63843-89-0**, Tinuvin 144  
(coatings, protective, for **ink-jet recording prints**)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Printing, nonimpact**  
(**ink-jet**, protective materials for prints from)

IT 131-53-3, Cyasorb UV-24 3896-11-5, Tinuvin 326 52829-07-9

**63843-89-0**, Tinuvin 144 64735-30-4, Dianal LR-216

70198-29-7, Sanol LS 622LD 70321-86-7, Tinuvin 900 109116-82-7  
109116-83-8

(coatings, protective, for **ink-jet recording prints**)

=> D L22 1-11 CBIB ABS HITSTR HITIND

L22 ANSWER 1 OF 11 HCA COPYRIGHT 2007 ACS on STN

142:317513 Water based concentrated product forms of light stabilizers

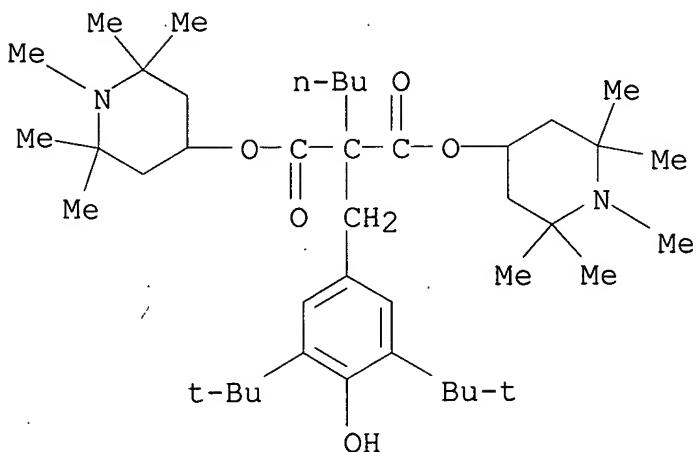
made by a heterophase polymerization technique. Schellenberg, Carsten; Auschra, Clemens; Peter, Wolfgang; Renoux, Delphine; Hayoz, Pascal (Ciba Specialty Chemicals Holding Inc., Switz.). PCT Int. Appl. WO 2005023878 A1 20050317, 107 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-EP51980 20040901. PRIORITY: EP 2003-103348 20030911.

AB The invention pertains to a concd. aq. dispersion of org. light stabilizers with a particle size of less than 1000 nm, prep'd. by heterophase radical polymn. of ethylenically unsatd. monomers in the presence of the light stabilizers, wherein the wt. ratio of light stabilizer to polymeric carrier is greater than 50/100. Another aspect of the invention is a process for the prepn. of such aq. dispersions with high light stabilizer content. Aq. dispersions prep'd. according to this process are useful ingredients for adhesives, aq. emulsions of natural or synthetic rubbers, water based **inks** or a water based coating compns., which are consequently also subjects of the invention. Thus, dissolving 2,4,6-tris[2'-hydroxy-4'-( $\alpha$ -(octyloxycarbonyl)ethoxy]phenyl]-s-triazine (I) 20 in a mixt. of Me methacrylate 20, stearyl methacrylate 1.6 and butanediol diacrylate 0.06, adding dropwise the resulting oil phase into a stirred soln. of sodium dodecyl sulfate 1.6 in water 56.5 g, stirring and sonicating gave a kinetically stable emulsion contg. droplets with av. diam. <250 nm. Heating the emulsion to 55°, adding a soln. of ascorbic acid 0.06 in water 3 and 0.25 mL 35% H2O2 dild. in water 0.5 g, stirring at 55° for 3 h, cooling to room temp. and filtering gave a product with particle size 141 nm and I content 20%. A clear coating contg. 10% the product showed good storage stability and resistance to weather test.

IT **63843-89-0**, Bis(1,2,2,6,6-pentamethyl-4-piperidyl)butyl(3,5-di-tert-butyl-4-hydroxybenzyl)malonate  
(light stabilizer; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)

RN 63843-89-0 HCA

CN Propanedioic acid, {[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl}butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



- IC ICM C08F002-44  
 ICS C08K005-00
- CC 37-2 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 39, 42
- IT Amines, uses  
 (hindered, light stabilizers; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT Adhesives  
 Coating materials  
**Inks**  
 Light stabilizers  
 Recording materials  
 (manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT Rubber, miscellaneous  
 (manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT Polymerization  
 (radical, heterophase; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT Polysiloxanes, uses  
 (tetramethylpiperidyl-contg., light stabilizers; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT Alkenes, uses  
 ( $\alpha$ -, maleic acid copolymer, reaction products with 2,2,6,6-tetramethyl-4-aminopiperidine; light stabilizers; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 108-77-0D, 2,4,6-Trichloro-1,3,5-triazine, reaction products with substituted ethanes and substituted piperidines 10563-26-5D, 1,2-Bis(3-aminopropylamino)ethane, reaction products with

- substituted triazines 36177-92-1, 4-Butylamino-2,2,6,6-tetramethylpiperidine 40075-75-0, 3-n-Octyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-2,4-dione 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 62782-03-0, Bis(2,2,6,6-tetramethyl-4-piperidyl) succinate **63843-89-0**, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) butyl(3,5-di-tert-butyl-4-hydroxybenzyl)malonate 64022-57-7 64022-61-3, Tetrakis(2,2,6,6-tetramethyl-4-piperidyl)-1,2,3,4-butanetetracarboxylate 64337-97-9, 2-Undecyl-7,7,9,9-tetramethyl-1-oxa-3,8-diaza-4-oxospiro[4.5]decane 67231-98-5D, reaction products with substituted ethanes 70198-29-7, 1-(2-Hydroxyethyl)-2,2,6,6-tetramethyl-4-hydroxypiperidine-succinic acid copolymer 71029-16-8, 1,1'-(1,2-Ethanediyl)bis(3,3,5,5-tetramethyl-2-piperazinone) 72058-42-5 75720-76-2D, reaction products with substituted ethanes 79720-19-7, 3-Dodecyl-1-(2,2,6,6-tetramethyl-4-piperidyl)pyrrolidine-2,5-dione 82451-48-7 82537-67-5, 8-Acetyl-3-dodecyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-2,4-dione 104564-32-1 106917-30-0, 3-Dodecyl-1-(1,2,2,6,6-pentamethyl-4-piperidyl)pyrrolidine-2,5-dione 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethyl-4-piperidyl) sebacate 122586-95-2, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidyl) succinate 124172-53-8, N,N'-Bis(formyl)-N,N'-bis(2,2,6,6-tetramethyl-4-piperidyl)-1,6-hexanediamine 147783-69-5, 1,1-Bis(1,2,2,6,6-pentamethyl-4-piperidyloxycarbonyl)-2-(4-methoxyphenyl)ethene 219991-91-0, 4-Benzoyl-2,2,6,6-tetramethylpiperidine 474043-37-3 474043-38-4, 4-Hexadecyloxy-2,2,6,6-tetramethylpiperidine 475672-75-4, Epichlorohydrin-7,7,9,9-tetramethyl-2-cycloundecyl-1-oxa-3,8-diaza-4-oxospiro[4,5]decane copolymer (light stabilizer; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 108-31-6D, Maleic anhydride,  $\alpha$ -olefin copolymer, reaction products with 2,2,6,6-tetramethyl-4-aminopiperidine 150686-79-6 221556-22-5 290822-07-0, 1-(2-Hydroxy-2-methylpropoxy)-4-octadecanoyloxy-2,2,6,6-tetramethylpiperidine (light stabilizers; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 25639-21-8P, Stearyl methacrylate homopolymer 847968-06-3P (manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 40327-96-6, 1,2,2,6,6-Pentamethyl-4-aminopiperidine 847968-07-4 (manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 178905-31-2 178905-32-3 348144-62-7 (manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)
- IT 847968-04-1P 847968-05-2P (support; manuf. of water-based concd. light stabilizers for

adhesive, coating and **ink**)  
IT 36768-62-4D, 2,2,6,6-Tetramethyl-4-aminopiperidine, reaction products with maleic copolymer (tetramethylpiperidyl-contg., light stabilizers; manuf. of water-based concd. light stabilizers for adhesive, coating and **ink**)

L22 ANSWER 2 OF 11 HCA COPYRIGHT 2007 ACS on STN

142:228776 Pretreatment method for **ink-jet**

**recording** material. Sismondi, Alain Dominique M.; Barlocco, Carlo; Marinelli, Domenico (Ferrania S.p.A., Italy). PCT Int. Appl. WO 2005014298 A1 20050217, 31 pp. DESIGNATED STATES: W: CN, JP, RU, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP11989. 20031029. PRIORITY: IT 2003-SV31 20030728.

AB The present invention refers to a method for incorporating a color fading inhibitor compd. into an **ink jet**

**recording** microporous material comprising a support and at least one porous **ink** receiving layer coated thereon by applying a re-wetting soln. comprising said color fading inhibitor compd. to said **ink-jet recording**

microporous material after that said **ink-jet**

**recording** microporous material has been completely dried.

The method of the present invention allows the color fading inhibitor compds. to be incorporated into any **ink-jet recording** microporous material, giving

improved weather storage characteristics over time, such as air resistance, without generating unacceptable coating defects.

According to another embodiment, the present invention relates to the use of are-wetting soln. comprising a color fading inhibitor compd. applied to an **ink-jet recording**

microporous material after that said microporous material has been completely dried to improve the aerial oxidn. resistance of images to be recorded on said microporous material. In a third embodiment, the present invention relates to an **ink-jet**

**recording** microporous material wherein said microporous material is obtainable by applying to said microporous material a re-wetting soln. comprising a color fading inhibitor compd. after that said microporous material has been completely dried. In a fourth embodiment, the present invention relates to a re-wetting soln. to re-wet an **ink-jet recording**

microporous material, wherein said re-wetting soln. comprises a color fading inhibitor compd., and one or more solvents selected from the group consisting of an org. solvent and an aq. solvent.

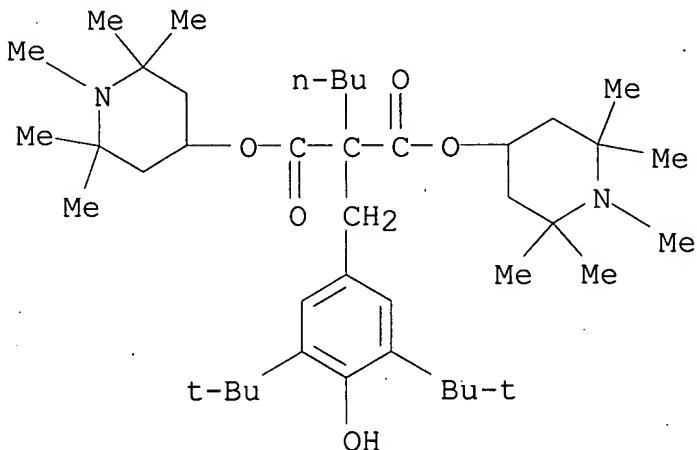
IT 63843-89-0 158462-94-3 173071-61-9

731863-29-9 844491-78-7 844491-79-8

(color fading inhibitor; pretreatment method for **ink-jet recording** material contg.)

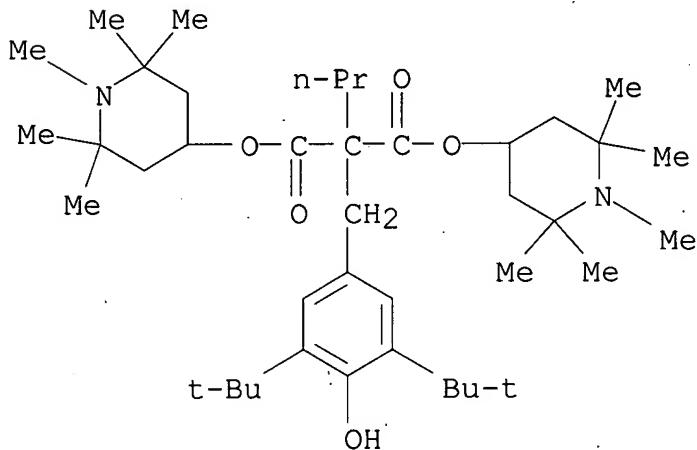
RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



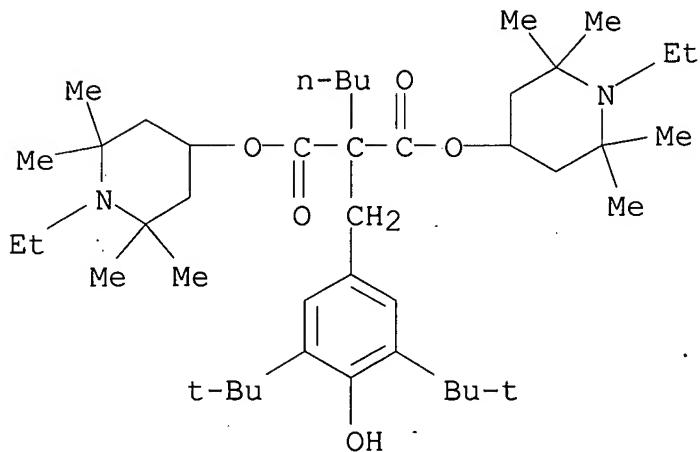
RN 158462-94-3 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]propyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



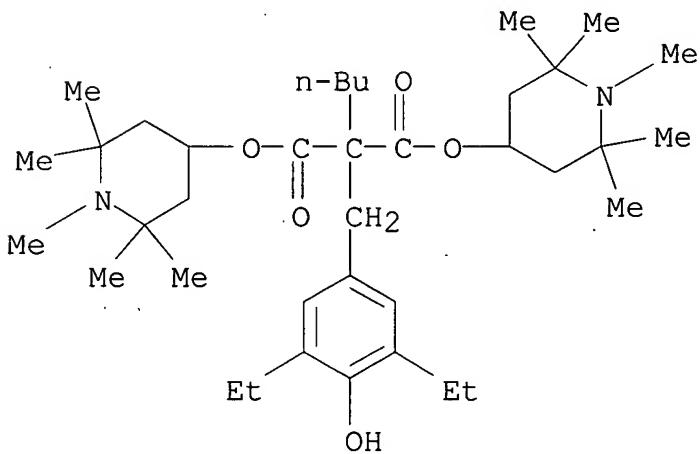
RN 173071-61-9 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1-ethyl-2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



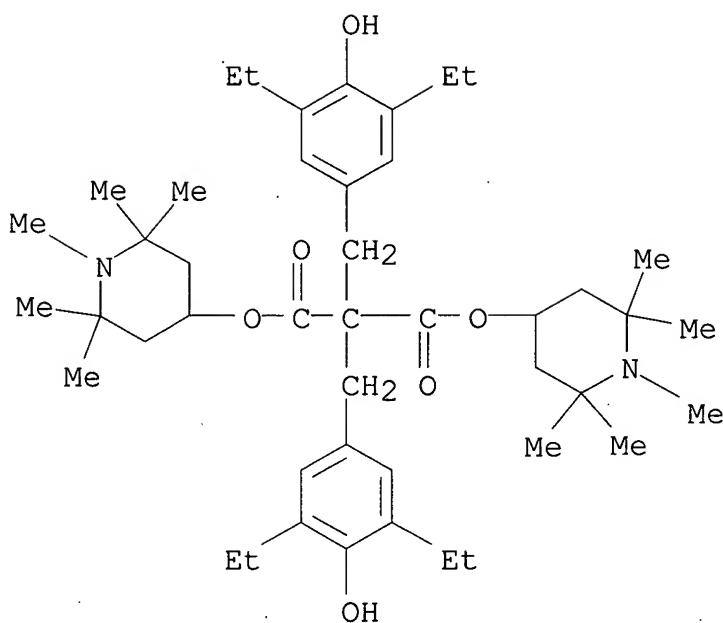
RN 731863-29-9 HCA

CN Propanedioic acid, butyl[(3,5-diethyl-4-hydroxyphenyl)methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



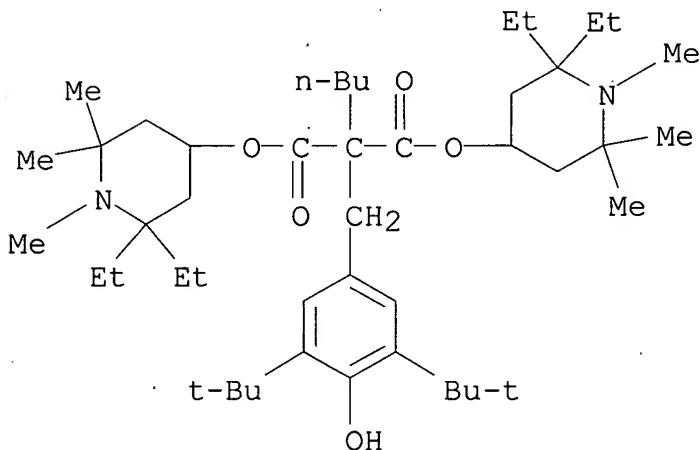
RN 844491-78-7 HCA

CN Propanedioic acid, bis[(3,5-diethyl-4-hydroxyphenyl)methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 844491-79-8 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(2,2-diethyl-1,6,6-trimethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-00

ICS C09D011-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pretreatment **ink jet recording**  
materialIT **Ink-jet printing**

(pretreatment method for **ink-jet recording** material)

IT 63843-89-0 158462-94-3 173071-61-9  
731863-29-9 844491-78-7 844491-79-8

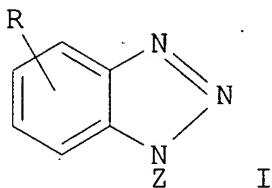
(color fading inhibitor; pretreatment method for **ink-jet recording** material contg.)

L22 ANSWER 3 OF 11 HCA COPYRIGHT 2007 ACS on STN

136:361872 **Ink-jet printing** sheet,

**ink**, printing method and printed material. Hanmura,  
Masahiro; Onishi, Hiroyuki; Kitamura, Kazuhiko (Seiko Epson Corp.,  
Japan). Jpn. Kokai Tokkyo Koho JP 2002137535 A2 **20020514**,  
16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-333977  
20001031.

GI



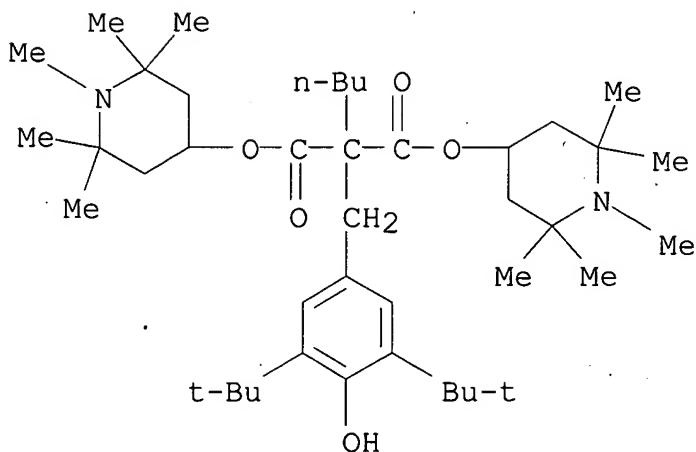
AB The sheet comprises a support coated with an **ink** receiving layer contg. a hindered amine and a benzotriazole compd. I (A= H, alkali metal; R = alkyl). The **ink** for **ink-jet printing** comprises a coloring agent, a hindered amine, and I. **Ink-jet printing** method using the sheet and/or the **ink** and the printed material are also claimed. The printed material shows good lightfastness, storage stability without yellowing,.

IT 63843-89-0, Tinuvin 144

(**ink-jet printing** sheet and  
**ink** contg. hindered amine and benzotriazole deriv.)

RN 63843-89-0 HCA

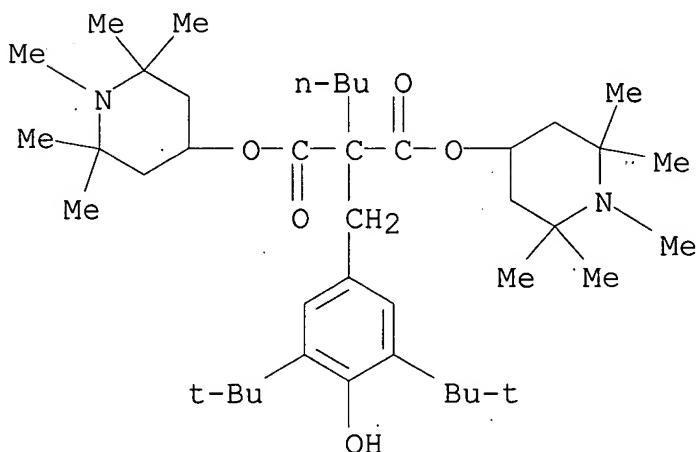
CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



- IC ICM B41M005-00  
ICS B41M005-00; B41J002-01; C09D011-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
ST **ink jet printing** sheet hindered amine benzotriazole  
IT **Ink-jet recording** sheets  
(**ink-jet printing** sheet contg.  
hindered amine and benzotriazole deriv.)  
IT **Inks**  
(**printing; ink-jet printing**  
**ink** contg. hindered amine and benzotriazole deriv.)  
IT 95-14-7, Seetec BT **63843-89-0**, Tinuvin 144  
(**ink-jet printing** sheet and  
**ink** contg. hindered amine and benzotriazole deriv.)

- L22 ANSWER 4 OF 11 HCA COPYRIGHT 2007 ACS on STN  
134:334312 **Ink-jet printing** sheet and recorded materials. Tanuma, Toshihiro (Asahi Glass Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001121812 A **20010508**, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-305655 19991027.  
AB The sheet comprises a support having thereon a porous **ink** receiving layer contg. an onium salt of a hindered amine compd. with an acid. The records are formed by using the sheet with the **ink** receiving layer in which a dye is held. The sheet showed improved **ink** absorbency and dye fixation and light stability in storage.  
IT **63843-89-0D**, Tinuvin 144, salts  
(**ink-jet printing** sheet contg.  
onium salt made from hindered amine and acid)  
RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-00  
ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **ink jet printing** sheet; hindered amine acid onium salt

IT **Ink-jet recording** sheets  
(**ink-jet printing** sheet contg.)

onium salt made from hindered amine and acid)

IT 52829-07-9, Tinuvin 770 **63843-89-0D**, Tinuvin 144, salts  
64022-61-3, ADK Stab LA 57 70198-29-7, Tinuvin 622 91788-83-9D,  
ADK Stab LA 52, salts 100631-43-4D, ADK Stab LA 67, salts  
107119-91-5, ADK Stab LA 62 226894-73-1, ADK Stab LX 332  
226894-73-1D, ADK Stab LX 332, salts

(**ink-jet printing** sheet contg.)

onium salt made from hindered amine and acid)

IT 63957-70-0P, Boehmite

(**ink-jet printing** sheet contg.)

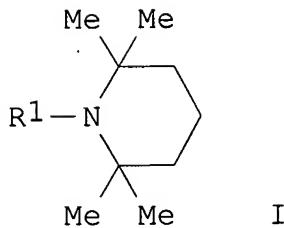
onium salt made from hindered amine and acid)

L22 ANSWER 5 OF 11 HCA COPYRIGHT 2007 ACS on STN

133:215486 **Ink**-acceptor sheet for thermal transfer printing.

Isakane, Masayoshi; Kozumi, Tetsuo; Horii, Akihiro (Sony Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000238438 A **20000905**, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-40284 19990218.

GI

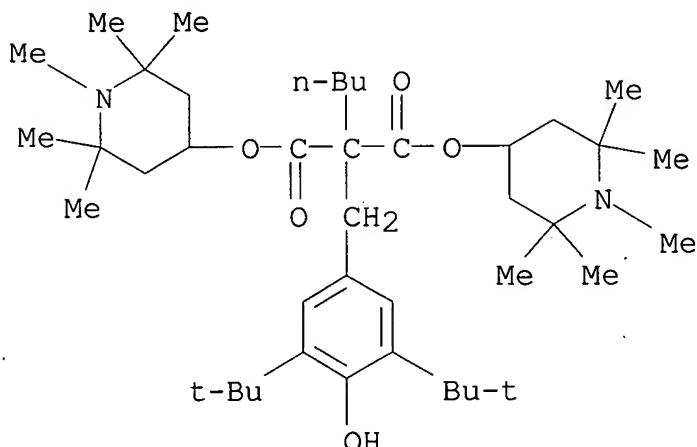


AB The **ink**-acceptor sheet for thermal transfer printing has an **ink**-acceptor layer on a substrate, wherein the **ink**-acceptor layer contains a light stabilizer made from hindered amine I ( R2 = H, org. substituent). The **ink**-acceptor sheet provides the improved image storage ability and the excellent anti-blocking property.

IT **63843-89-0**, Tinuvin 144  
(light-stabilizer in thermal transfer **ink**-acceptor sheet)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-38

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42

ST thermal transfer printing **ink** acceptor sheet light stabilizer

IT Amines, uses  
(hindered; thermal transfer printing **ink**-acceptor sheet)

- IT Thermal-transfer printing materials  
 (receptors; thermal transfer printing **ink**-acceptor sheet)
- IT Light stabilizers  
 (thermal transfer printing **ink**-acceptor sheet)
- IT 41556-26-7, Sanol LS 765 52829-07-9, Sanol LS 770  
**63843-89-0**, Tinuvin 144 70198-29-7, Tinuvin 622D  
 71878-19-8, Chimassorb 944FL 73754-27-5, Sanol LS 2626  
 85099-51-0, Sanduvor 3050 115055-30-6, MARK LA 63  
 (light-stabilizer in thermal transfer **ink**-acceptor sheet)

L22 ANSWER 6 OF 11 HCA COPYRIGHT 2007 ACS on STN

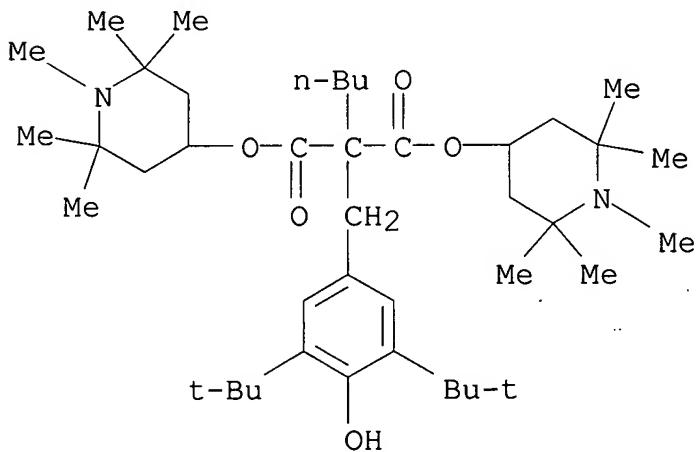
133:36112 **Ink-jet recording** sheet with  
 good lightfastness. Ishimaru, Tomoko (Mitsubishi Paper Mills, Ltd.,  
 Japan). Jpn. Kokai Tokkyo Koho JP 2000158802 A **20000613**,  
 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-336876  
 19981127.

AB The title **ink-jet recording** sheet  
 comprises a support coated with an **ink**-receiving layer  
 contg. gelatin, an UV absorbent, and an antioxidant. The sheet  
 provides high quality images with improved lightfastness.

IT **63843-89-0**, TINUVIN 144  
 (**ink-jet printing** sheet contg. UV  
 absorbent and antioxidant)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-  
 hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-  
 piperidinyl) ester (9CI) (CA INDEX NAME)



- IC ICM B41M005-00  
 ICS B05D001-28; B05D005-04; B05D007-24; B32B009-02; B41J002-01  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and

ST Other Reprographic Processes)  
ink jet printing sheet antioxidant;  
gelatin ink jet printing sheet; UV  
absorbent ink jet printing sheet

IT Antioxidants  
Ink-jet recording sheets  
UV stabilizers  
(ink-jet printing sheet contg. UV  
absorbent and antioxidant)

IT Gelatins, uses  
(ink-jet printing sheet contg. UV  
absorbent and antioxidant)

IT 903-19-5, 88HQ  
(88HQ; ink-jet printing sheet  
contg. UV absorbent and antioxidant)

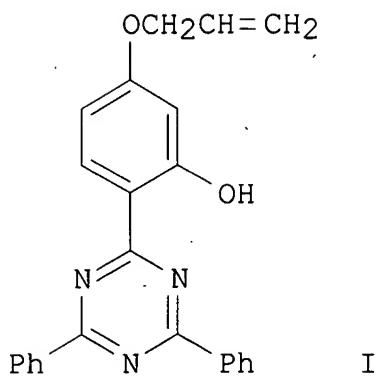
IT 146598-26-7, Isooctyl-3-(3,5-di-tert-butyl-4-  
hydroxyphenyl)propionate  
(Irganox 1135; ink-jet printing  
sheet contg. UV absorbent and antioxidant)

IT 1709-70-2, Irganox 1330 3846-71-7, TINUVIN 320 6683-19-8,  
Irganox 1010 23328-53-2, TINUVIN 171 **63843-89-0**, TINUVIN  
144  
(ink-jet printing sheet contg. UV  
absorbent and antioxidant)

L22 ANSWER 7 OF 11 HCA COPYRIGHT 2007 ACS on STN

131:352667 Anticlogging, hot-melt ink-jet  
printing ink compositions. Sekine, Tomoko;  
Murakami, Kakuji; Goto, Akihiko; Nagata, Nobutaka; Kaneko, Tetsuya  
(Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11315234 A  
**19991116** Heisei, 8 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 1998-140464 19980507.

GI



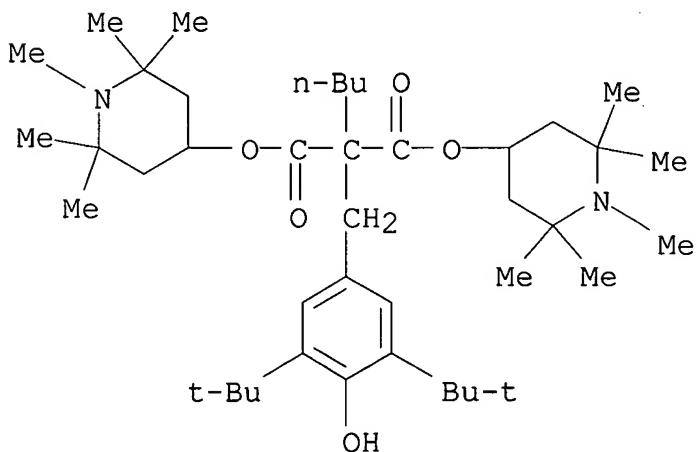
AB The **ink** compns. contain a triazine I (R<sub>1</sub>, R<sub>2</sub> = H, OH, R<sub>3</sub>X<sub>4</sub>nY; A, B = R<sub>1</sub>, R<sub>2</sub>; R<sub>3</sub>, R<sub>4</sub> = alkyl, alkenyl, Ph which may be substituted with OH; R<sub>4</sub> = alkylene and/or oxyalkylene; X = direct bond, ester; Y = direct bond, ether; n = 0-10) and/or a hindered amine and optionally a hot-melt colorless vehicle and a dye. The **ink** compns. give light-resistant images. Thus, a hot-melt **ink** contained C.I. Solvent Red 49 1.5, C.I. Solvent Red 109 0.5, cholesterol stearate 43.6, cholesterol palmitate 25.2, cholesterol myristate 17.6, lanolin wax 9.5, a triazin II 2.0, and triphenylphosphite 0.1%.

IT **63843-89-0**

(anticlogging, hot-melt **ink-jet**  
**printing ink** compns. contg. triazine and/or  
hindered amine)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C09D011-00  
ICS B41J002-01; B41M005-00  
CC 42-12 (Coatings, Inks, and Related Products)  
ST anticlogging hot melt **ink** jet triazine; hinderedamine  
**ink** jet anticlogging hot melt  
IT **Inks**  
(**jet-printing**, anticlogging; anticlogging,  
hot-melt **ink-jet printing**  
**ink** compns. contg. triazine and/or hindered amine)  
IT **Inks**  
(**jet-printing**, hot-melt; anticlogging,  
hot-melt **ink-jet printing**  
**ink** compns. contg. triazine and/or hindered amine)  
IT Beeswax  
(vehicle; anticlogging, hot-melt **ink-jet**  
**printing ink** compns. contg. triazine and/or  
hindered amine)  
IT Lanolin  
(wax, vehicle; anticlogging, hot-melt **ink-jet**  
**printing ink** compns. contg. triazine and/or  
hindered amine)  
IT 63843-89-0 120302-93-4 186352-96-5 250278-27-4  
250278-75-2  
(anticlogging, hot-melt **ink-jet**  
**printing ink** compns. contg. triazine and/or  
hindered amine)  
IT 601-34-3, Cholesterol palmitate 1989-52-2, Cholesterol myristate  
2958-09-0, Monostearyl phosphate 3037-89-6, Distearyl phosphate  
31566-31-1, Glycerol monostearate 35602-69-8, Cholesterol stearate  
37318-31-3, Sucrose stearate 37361-17-4, Abietic acid  
pentaerythritol ester 42714-99-8, Dibehenyl phosphate  
(vehicle; anticlogging, hot-melt **ink-jet**  
**printing ink** compns. contg. triazine and/or  
hindered amine)

L22 ANSWER 8 OF 11 HCA COPYRIGHT 2007 ACS on STN  
131:186355 Additive composition to improve colorfastness and durability  
of a printed image. Lin, An-Chung Robert; Tom, Howard S.  
(Hewlett-Packard Company, USA). U.S. US 5948150 A 19990907  
, 11 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-73301  
19980505.

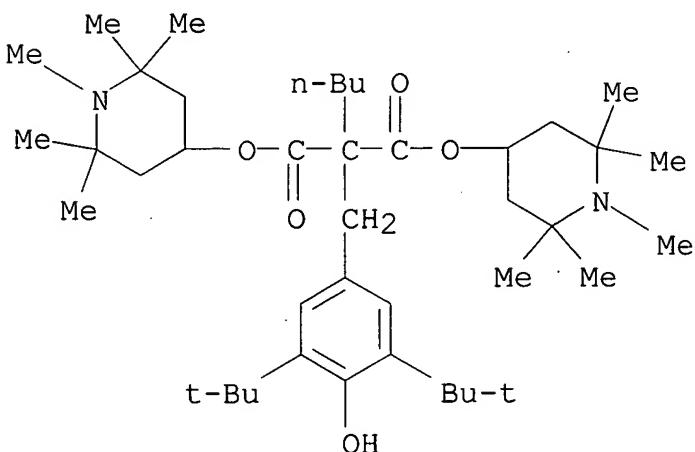
AB The title additive comprises (A) ≥1 UV absorber, (B)  
≥1 free radical inhibitor, (C) ≥1 antioxidant, and (D)  
≥1 liq. carrier selected from H<sub>2</sub>O, org. liq. or these  
combinations. Thus, an example additive package contained 2%  
IRGAPER 2140, 2% TINUVIN 1130, 1% TINUVIN 292, 5% PVP K-90 and the  
balance iso-Pr alc. (90%) soln.

IT 63843-89-0

(in additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C09D011-00

INCL 106031130

CC 42-12 (Coatings, Inks, and Related Products)

ST radical inhibitor UV stabilizer antioxidant compn; **ink** additive package lightfastness printed image; coating additive package lightfastness printed image

IT Coating materials

(for paper or plastic printing media substrate; contg. additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

IT Amines, uses

(hindered; in additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

IT Antioxidants

Radical scavengers

UV stabilizers

(in additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

IT Inks

(**jet-printing**; contg. additive compn. to improve colorfastness and durability of a **printed** image

by **jet** or **laser printing** app.)

IT 85238-64-8

(Irgaperm 2140; in additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

IT 95-14-7, 1H-Benzotriazole 98-86-2, uses 102-82-9 119-61-9, uses 121-44-8, uses 6683-19-8 7681-53-0 15475-67-9

23328-53-2 41556-26-7 **63843-89-0** 104810-48-2

(in additive compn. to improve colorfastness and durability of a **printed** image by **jet** or **laser printing** app.)

L22 ANSWER 9 OF 11 HCA COPYRIGHT 2007 ACS on STN

130:268518 Reversible thermochromic composition. Shibahashi, Yutaka;

Sugai, Jun (The Pilot Ink Co., Ltd., Japan). Eur. Pat. Appl. EP

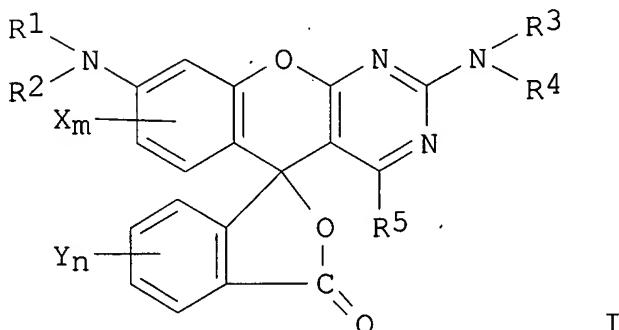
908501 A1 **19990414**, 20 pp. DESIGNATED STATES: R: AT, BE,

CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT,

LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1998-308072

19981005. PRIORITY: JP 1997-291630 19971007.

GI



AB Reversible thermochromic compns. are described which comprise a diazorhodamine lactone deriv. described by the general formula I (R1-2 = independently selected H, C1-8 alkyl or hydroxyalkyl, C2-12 alkoxyalkyl, C4-11 carboalkoxyalkyl, Ph, C7-12 phenylalkyl, or Ph substituted with chlorine, bromine, or C1-4 alkyl or alkoxy groups; R3 and R4 = independently selected H, C1-8 alkyl, C5-7 cycloalkyl or hydroxyalkyl, C2-12 alkoxyalkyl, C4-11 carboalkoxyalkyl, or C7-12 phenylalkyl; R1 and R2, and R3 and R4 may form together ring; R5 = C1-3 alkyl, C1-4 alkoxy, Ph, or Ph substituted with chlorine, bromine, or C1-4 alkyl or alkoxy; X and Y = chlorine, or C1-3 alkyl, hydroxyalkyl, or halogenalkyl groups; m = 0-3; and n = 0-4) as an electron-donating color-developing org. compd., an electron-accepting compd., and a reaction medium for causing an

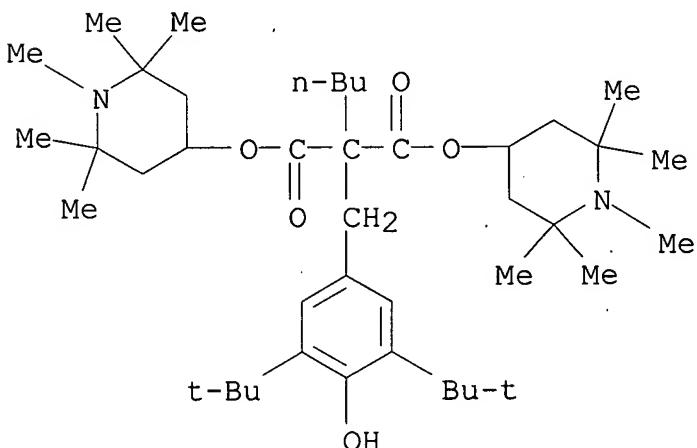
electron exchange reaction between the components and reversibly at a specified temp. range. The compns. develop a clear reddish color in the colored state, and become colorless in the decolored state without residual color. The compns. may addnl. contain photostabilizers selected from UV absorbers, antioxidants, singlet oxygen quenchers, superoxide anion quenchers, ozone quenchers, and IR absorbers. The compns. may be enclosed in microcapsules.

IT **63843-89-0**, Propane dioic acid[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)ester

(reversible thermochromic compns. employing diazarhodamine lactone derivs. and)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM C09K009-02  
ICS B41M005-28

CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitzers)  
Section cross-reference(s): 28, 69, 73

IT **Inks**

(printing; reversible thermochromic compns. employing diazarhodamine lactone derivs. in)

IT **Inks**

Microcapsules

(reversible thermochromic compns. employing diazarhodamine lactone derivs. in)

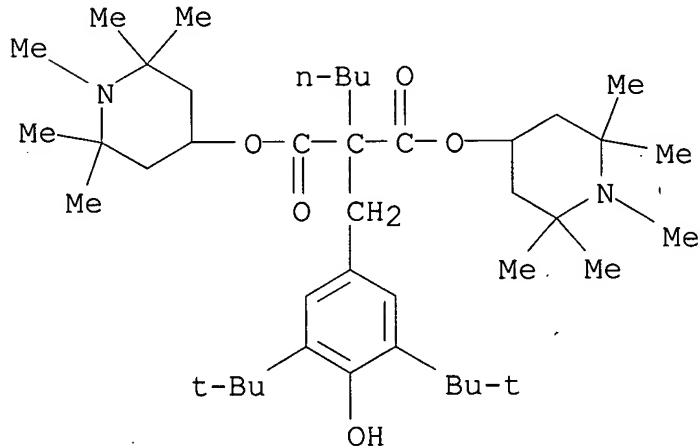
IT **Inks**

(writing; reversible thermochromic compns. employing diazarhodamine lactone derivs. in)

IT 3147-76-0 25973-55-1, 2-(3,5-Di-t-amyl-2-hydroxyphenyl)-

benzotriazole **63843-89-0**, Propane dioic acid[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)ester  
(reversible thermochromic compns. employing diazarhodamine lactone derivs. and)

- L22 ANSWER 10 OF 11 HCA COPYRIGHT 2007 ACS on STN  
120:301314 Lightfast solid recording media and recording therewith.  
Shirota, Katsuhiro; Takizawa, Yoshihisa (Canon Kk, Japan). Jpn.  
Kokai Tokkyo Koho JP 05345872 A **19931227** Heisei, 12 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-178914 19920615.
- AB Recording media, solid at ambient temp., used for recording by liq. drops (from the solid media by heating) ejected from a recording head contain a colorant and at least UV absorbers, Ni complex-based UV stabilizers, or hindered amine light stabilizers. A solid medium giving lightfast graphics images on plain paper with good fixation comprised ethylene carbonate 50, 1,12-dodecanediol 42, 2-hydroxy-4-methoxybenzophenone 3, and C.I. Solvent Black 2 5%.
- IT **63843-89-0**, Tinuvin 144  
(light stabilizers, in solid **jet-printing inks**)
- RN 63843-89-0 HCA
- CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



- IC ICM C09D011-00  
ICS B05D001-02; B41J002-01
- CC 42-12 (Coatings, Inks, and Related Products)
- ST solid **jet printing ink** lightfast;  
light stabilizer **jet printing ink**;  
benozphenone light stabilizer **ink**; hindered amine light stabilizer **ink**; nickel complex light stabilizer

**ink**

IT Light stabilizers  
(for solid **jet-printing inks**)

IT Dyes  
(in solid **jet-printing inks**)

IT **Inks**  
(**jet-printing**, solid, light stabilizers for)

IT 509-34-2, C.I. Solvent Red 49 842-07-9, C.I. Solvent Yellow 14  
1229-55-6, C.I. Solvent Red 1 1330-38-7, C.I. Solvent Blue 38  
4197-25-5, C.I. Solvent Black 3 8003-22-3, C.I. Solvent Yellow 33  
14233-37-5, C.I. Solvent Blue 36 116410-83-4, C.I. Solvent Black  
47 149315-87-7, C.I. Solvent Black 46 155328-08-8, C.I. Solvent  
Red 37  
(dye, in solid **jet-printing inks**)

IT 87-18-3, p-tert-Butylphenyl salicylate 131-53-3,  
2,2'-Dihydroxy-4-methoxybenzophenone 131-57-7,  
2-Hydroxy-4-methoxybenzophenone 1843-05-6, 2-Hydroxy-4-  
octoxybenzophenone 4221-80-1, Tinuvin 120 5232-99-5, Ethyl  
2-cyano-3,3-diphenylacrylate 7440-02-0D, Nickel, octylphenyl  
sulfide complexes 13985-94-9, Nickel dithiocarbamate 52829-07-9,  
Sanol LS 770 **63843-89-0**, Tinuvin 144 65447-77-0, Tinuvin  
622LD 99264-52-5D, nickel complexes 100631-44-5, Mark LA68  
115055-30-6, Mark LA63  
(light stabilizers, in solid **jet-printing**  
**inks**)

L22 ANSWER 11 OF 11 HCA COPYRIGHT 2007 ACS on STN  
 101:63550 The prevention of fading and discoloration of color hard  
 copies by UV absorbers. Anon. (UK). Research Disclosure, 242,  
 284-5 (No. 24239) (English) **1984**. RD 242039 19840610.  
 CODEN: RSDSBB. ISSN: 0374-4353. PRIORITY: RD 1984-242039  
**19840610**.

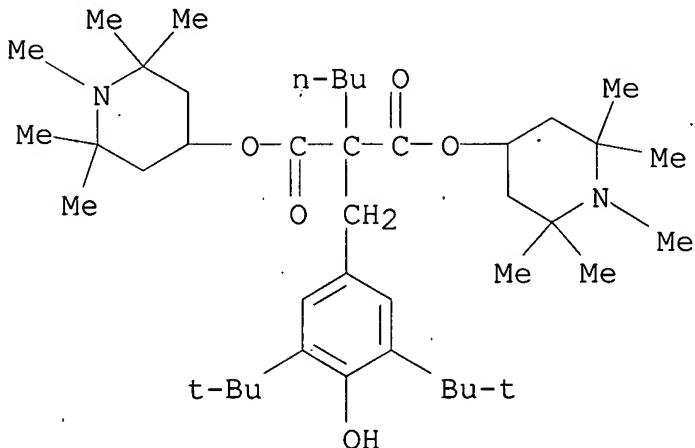
AB Color images produced by electrog., electrophotog., thermal  
**recording, ink-jet printing,**  
 imaging systems based on dye transfer, photoimaging, and the like  
 are protected against discoloration by light by UV absorbers which  
 absorb strongly in the 300-400 nm region and are transparent to  
 visible light. The substances, which can be incorporated into the  
 imaging compns., protective overcoatings, image receptor surfaces,  
 and the like, comprise benzophenone derivs., benzotriazoles,  
 benzylidene malonates, salicylates, monobenzoates, oxamides, and  
 others.

IT **63843-89-0**  
 (UV absorber, for prevention of fading and discoloration of color  
 images)

RN 63843-89-0 HCA

CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-  
 hydroxyphenyl]methyl]butyl-, bis(1,2,2,6,6-pentamethyl-4-

piperidinyl) ester (9CI) (CA INDEX NAME)



CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 95-14-7D, derivs. 118-55-8 119-61-9D, derivs. 131-53-3  
 131-56-6 131-57-7 136-36-7 1421-49-4 1843-05-6 2440-22-4  
 2553-08-4 2985-59-3 3147-75-9 3147-76-0 3846-71-7  
 3864-99-1 3896-11-5 4221-80-1 25973-55-1 28262-12-6  
 33059-05-1 36437-37-3 41556-26-7 42151-35-9 52829-07-9  
**63843-89-0** 67845-93-6 70321-86-7 84268-22-4  
 84268-23-5 91259-39-1 91259-40-4 91274-89-4  
 (UV absorber, for prevention of fading and discoloration of color images)

=> D L30 1-117 TI

L30 ANSWER 1 OF 117 HCA COPYRIGHT 2007 ACS on STN  
 TI Presensitized lithographic printing plates with excellent IR laser sensitivity and storage stability for CTP (computer-to-plate) system

L30 ANSWER 2 OF 117 HCA COPYRIGHT 2007 ACS on STN  
 TI Color photographic films showing fine color reproduction and excellent light resistance

L30 ANSWER 3 OF 117 HCA COPYRIGHT 2007 ACS on STN  
 TI Heat-developable photographic material and its processing method

L30 ANSWER 4 OF 117 HCA COPYRIGHT 2007 ACS on STN  
 TI Manufacture of multilayer cellulose acylate films having good releasability and durability and polarizer protective films therefrom

- L30 ANSWER 5 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilized metallocene polyolefins
- L30 ANSWER 6 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photothermographic material containing hindered amine, epoxy compound, or sulfonic acid
- L30 ANSWER 7 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic materials having improved green-sensitive emulsion layers
- L30 ANSWER 8 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Bloom-resistant benzotriazole UV absorbers, organic compositions stabilized with UV absorbers, and articles
- L30 ANSWER 9 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Color electrophotographic apparatus showing excellent color balance in repeated use and method for image formation
- L30 ANSWER 10 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Tandem-type color electrophotographic apparatus showing excellent color balance in repeated use, method for image formation, and image-forming units
- L30 ANSWER 11 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic apparatus and electrophotographic image formation
- L30 ANSWER 12 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Coloring composition containing developer oxide precursor, coupler, and cyclic amine compound
- L30 ANSWER 13 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material involving red-sensitive emulsion layer containing specific cyan coupler and additive
- L30 ANSWER 14 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Reversible thermal color changing compositions
- L30 ANSWER 15 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Piperidine derivative-containing fabrics for agriculture sheets and their production
- L30 ANSWER 16 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors with good repeating durability
- L30 ANSWER 17 OF 117 HCA COPYRIGHT 2007 ACS on STN

- TI Hindered phenolamine compound, its preparation, and electrophotographic photoreceptor using it
- L30 ANSWER 18 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor
- L30 ANSWER 19 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing polymer in outermost photosensitive layer
- L30 ANSWER 20 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Novel polycarbonate resin, its preparation, electrophotographic photoreceptor, and its apparatus using the same
- L30 ANSWER 21 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Low-dust stabilizers, their preparation and use
- L30 ANSWER 22 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor having hindered amine or phenol in light-sensitive layer
- L30 ANSWER 23 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material, phenidone compounds used therefor, and process for preparing the same
- L30 ANSWER 24 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing fluorene compound
- L30 ANSWER 25 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing hindered amine compound
- L30 ANSWER 26 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Antibacterial agents and resin compositions and coatings containing them
- L30 ANSWER 27 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Method of forming electrophotographic image on photoreceptor containing hindered amine antioxidant
- L30 ANSWER 28 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing hindered phenolic amine antioxidant
- L30 ANSWER 29 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Method for improving light-fastness of reversible thermochromic compositions at the time of color extinguishment
- L30 ANSWER 30 OF 117 HCA COPYRIGHT 2007 ACS on STN

- TI Silver halide photographic material containing hydroquinone derivative and piperidine and the processing method
- L30 ANSWER 31 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Thermal recording material containing hindered amine and ultraviolet absorber
- L30 ANSWER 32 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Weather resistance of UV-curable clear powder coatings
- L30 ANSWER 33 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor with high sensitivity and excellent repetitive use characteristic
- L30 ANSWER 34 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material
- L30 ANSWER 35 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photographic recording material
- L30 ANSWER 36 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Process for controlling the photodegradation of mulch film
- L30 ANSWER 37 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photochromic compositions of improved fatigue resistance
- L30 ANSWER 38 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor with long service life
- L30 ANSWER 39 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Thermal recording medium with superior chemical resistance and shelf life
- L30 ANSWER 40 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Method for forming a photographic color image
- L30 ANSWER 41 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Noncompetitive inhibitors of neuronal nicotinic acetylcholine receptors
- L30 ANSWER 42 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photochromic glass laminates
- L30 ANSWER 43 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Method for preventing degradation of cellulose acetate films used for photographic films or polarization protective films
- L30 ANSWER 44 OF 117 HCA COPYRIGHT 2007 ACS on STN

- TI Silver halide color photographic material
- L30 ANSWER 45 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Process and agents for improvement of resistance of fibers to light and heat
- L30 ANSWER 46 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Dye image-receiving material for color diffusion transfer photography
- L30 ANSWER 47 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material
- L30 ANSWER 48 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Hydrophilic, hydrolysis-resistant polyurethane compositions and magnetic coating compositions with them as binders
- L30 ANSWER 49 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material containing yellow coupler for continuous processing
- L30 ANSWER 50 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Process and agents for improvement of resistance of fibers to light and heat
- L30 ANSWER 51 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material
- L30 ANSWER 52 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Polyolefin compositions stabilized with N-hydrocarbyl(carbonyl)oxy-substituted hindered amines
- L30 ANSWER 53 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material
- L30 ANSWER 54 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material containing pivaloyl- or benzoylacetanilide yellow photographic coupler
- L30 ANSWER 55 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilized monomer compositions
- L30 ANSWER 56 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Polymers stabilized with N-substituted hindered amines
- L30 ANSWER 57 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoconductors

- L30 ANSWER 58 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic material containing antioxidant
- L30 ANSWER 59 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Ultraviolet-resistant glutarimide polymers
- L30 ANSWER 60 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors containing fluoropolycarbonate and hindered phenols
- L30 ANSWER 61 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors containing polyoxyarylene-polyesters
- L30 ANSWER 62 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors containing polyoxyarylene-polycarbonates
- L30 ANSWER 63 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors charge-transporting layer containing phenol derivative
- L30 ANSWER 64 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Durable electrophotographic photoreceptor.
- L30 ANSWER 65 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Multicolor thermal printing material having piperidinyl benzylmalonate as decoloring agent
- L30 ANSWER 66 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Color photographic material with improved lightfastness and color reproducibility
- L30 ANSWER 67 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing compound with hindered amine and phenol units
- L30 ANSWER 68 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Heat-developable diffusion-transfer color photographic dye-fixing element
- L30 ANSWER 69 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Color photographic material containing developer scavenger-releasing coupler and image stabilizer
- L30 ANSWER 70 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Heat-developable color photographic dye image-fixing element

- L30 ANSWER 71 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptor containing compound with hindered amine and hindered phenol units
- L30 ANSWER 72 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Microcapsule-based photoimaging materials
- L30 ANSWER 73 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material containing imidazole cyan coupler, and phenol, piperidine or hydroxy phenobenzotriazole
- L30 ANSWER 74 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI N-substituted hindered amine stabilizers for coatings
- L30 ANSWER 75 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Hindered cyclic hydroxylamines as light stabilizers for coatings
- L30 ANSWER 76 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photographic material with improved color reproduction
- L30 ANSWER 77 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Color photographic light-sensitive material
- L30 ANSWER 78 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Heat and light stabilizers for plastics
- L30 ANSWER 79 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Esters of hindered hydroxylamines as light stabilizers for coatings
- L30 ANSWER 80 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photochromic material from polymer substrate containing spirooxazine compound and triplet state quencher
- L30 ANSWER 81 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material with improved image stability
- L30 ANSWER 82 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Spirooxazine photochromic composition containing hindered amine for lightfastness
- L30 ANSWER 83 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Polyphenylene ether resin blends having improved ultraviolet light stability
- L30 ANSWER 84 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Composite photoconductor using electrophotographic photoreceptor

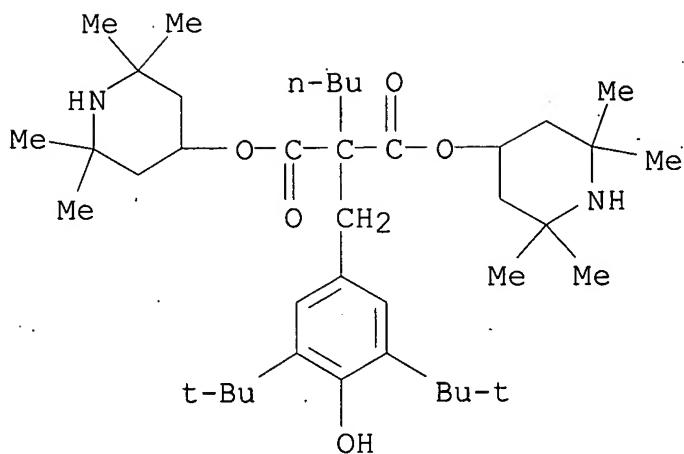
- L30 ANSWER 85 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Electrophotographic photoreceptors containing compounds having amine and phenol substructures
- L30 ANSWER 86 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photographic material for light-stable images
- L30 ANSWER 87 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Photographic development process for silver halide color paper for improved lightfastness
- L30 ANSWER 88 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Manufacture of oxymethylene copolymers with improved thermal stability
- L30 ANSWER 89 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic materials containing phenolic cyan couplers
- L30 ANSWER 90 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material for rapid development
- L30 ANSWER 91 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic materials containing pyrazoloazole-type magenta couplers
- L30 ANSWER 92 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI High temperature glass capillary gas chromatography using hydroxy-terminated polysiloxane stationary phases. Separation of antioxidants and UV-stabilizers
- L30 ANSWER 93 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic photosensitive materials
- L30 ANSWER 94 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Heat-sensitive recording material
- L30 ANSWER 95 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Desensitizer compositions
- L30 ANSWER 96 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Rapid developing silver chloride color photographic material
- L30 ANSWER 97 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic photosensitive materials
- L30 ANSWER 98 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Light-sensitive silver halide photographic material

- L30 ANSWER 99 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide color photographic material for color prints
- L30 ANSWER 100 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilizer compositions for synthetic resins imparting improved light stability
- L30 ANSWER 101 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic photosensitive material
- L30 ANSWER 102 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic material
- L30 ANSWER 103 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Pressure-sensitive recording sheet
- L30 ANSWER 104 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Silver halide photographic light-sensitive material
- L30 ANSWER 105 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Agricultural poly(vinyl chloride) compositions
- L30 ANSWER 106 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Chromatographic determination of some hindered amine light stabilizers in polyolefins
- L30 ANSWER 107 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilizers for polyurethanes
- L30 ANSWER 108 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Determination of the hindered amine additive CGL-144 in polypropylene by high-performance liquid chromatography
- L30 ANSWER 109 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilized color photographic materials
- L30 ANSWER 110 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Light stabilizers
- L30 ANSWER 111 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilizers for synthetic polymers comprising 2,2,6,6-tetramethyl-4-piperidyl carboxylic acid ester,  $\beta$ -thioalkyl propionic acid ester and phenol
- L30 ANSWER 112 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Polyolefin articles sterilizable by  $\gamma$ -irradiation

- L30 ANSWER 113 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Substituted malonic acid derivatives and their use as stabilizers
- L30 ANSWER 114 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Copoly(ether ester) compositions stabilized against oxidative degradation
- L30 ANSWER 115 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Hydroxybenzylmalonic acid derivatives
- L30 ANSWER 116 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Hydroxybenzylmalonic acid derivatives
- L30 ANSWER 117 OF 117 HCA COPYRIGHT 2007 ACS on STN  
TI Stabilizer for synthetic polymers

=> D L30 1,94,103 CBIB ABS HITSTR HITIND

- L30 ANSWER 1 OF 117 HCA COPYRIGHT 2007 ACS on STN  
142:363819 Presensitized lithographic printing plates with excellent IR laser sensitivity and storage stability for CTP (computer-to-plate) system. Sakata, Itaru; Tashiro, Hiroshi; Tsuchimura, Toshitaka (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2005084302 A 20050331, 56 pp. (Japanese). CODEN: JKXXAF..  
APPLICATION: JP 2003-315336 20030908.
- AB The plates have supports, photopolymerizable photosensitive layers, and protective layers contg. antioxidants (thioether compds., amines, and/or phosphite esters, preferably).
- IT **63843-90-3**  
(antioxidant, protective layer; presensitized lithog. printing plates including antioxidant-contg. protective layers with good IR laser sensitivity and storage stability for CTP system)
- RN 63843-90-3 HCA
- CN Propanedioic acid, [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butyl-, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



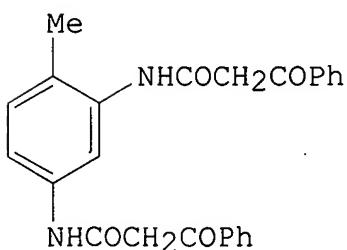
IC ICM G03F007-11  
ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

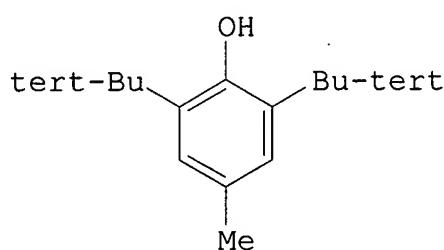
IT 103-04-8 111-17-1 1809-19-4 **63843-90-3**  
(antioxidant, protective layer; presensitized lithog. printing plates including antioxidant-contg. protective layers with good IR laser sensitivity and storage stability for CTP system)

L30 ANSWER 94 OF 117 HCA COPYRIGHT 2007 ACS on STN  
108:29512 Heat-sensitive recording material. Matsuoka, Katsumi;  
Ichikawa, Kimio; Nakamura, Kotaro (Fuji Photo Film Co., Ltd.,  
Japan). Ger. Offen. DE 3639382 A1 **19870527**, 38 pp.  
(German). CODEN: GWXXBX. APPLICATION: DE 1986-3639382 19861118.  
PRIORITY: JP 1985-256757 19851118; JP 1985-287485 19851220; JP  
1985-287486 19851220; JP 1985-287487 19851220.

GI



I



II

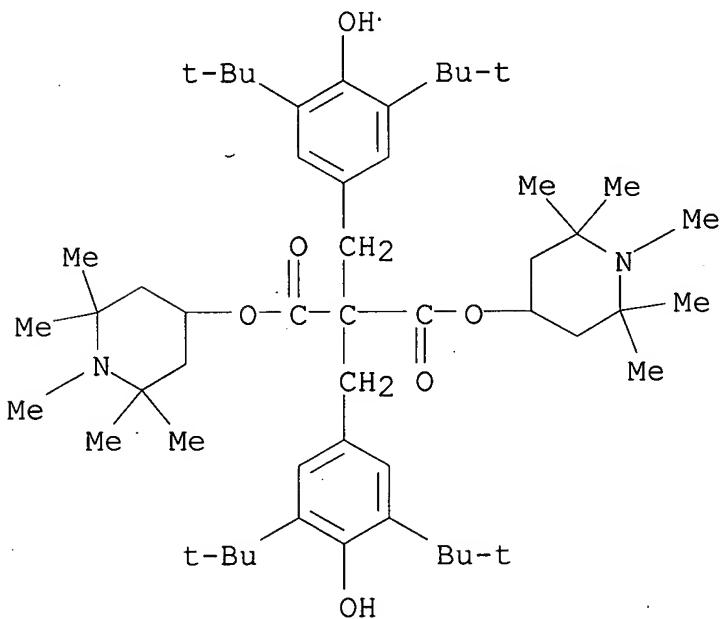
AB Heat-sensitive recording materials, in which the background d. at the time of recording, the damage to the image after recording, the

yellowing of the background after recording, and the storage stability in the raw state are all decreased or improved, are composed of a diazonium salt and a coupler (either of which may be microencapsulated) and ≥1 sterically hindered phenol and/or a deriv. thereof. Thus, a high quality paper was coated with a dispersion contg. 2,5-dibutoxy-4-morpholine benzenediazonium hexafluorophosphate, N-phenyl-3-hydroxy-2-naphthamide, PhNHC-NPhNPh, p-EtC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH, I, and II, dried, recorded upon in a thermal printer, and then photo-fixed to produce an image with image d. 1.32 and yellow background d. 0.22. After 24 h exposure to a fadeometer these values were 1.29 and 0.26, resp.

IT **56677-67-9**  
(thermal recording material contg., for improved stability)

RN 56677-67-9 HCA

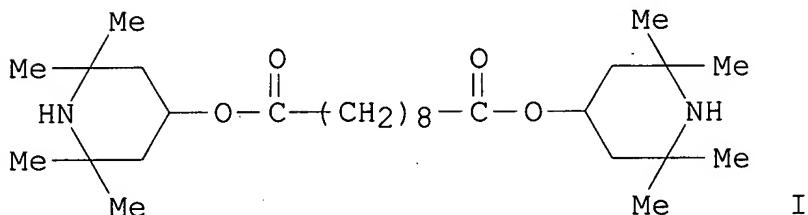
CN Propanedioic acid, bis[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IC ICM B41M005-18  
ICS B41M005-12; C09D005-26  
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 96-69-5 128-37-0, uses and miscellaneous 1843-03-4  
**56677-67-9** 63941-39-9 67399-94-4 76460-83-8  
89929-65-7 106135-07-3 106135-17-5 112095-92-8 112095-93-9  
(thermal recording material contg., for improved stability)

103:224470 Pressure-sensitive recording sheet. (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60107383 A  
**19850612** Showa, 5 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 1983-215814 19831116.

GI

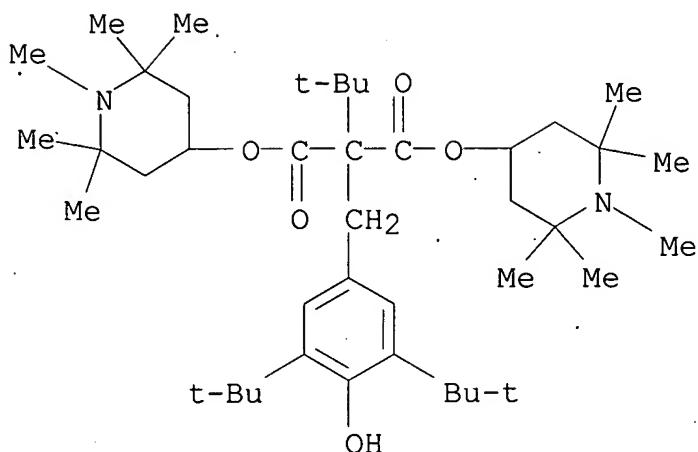


**AB** A pressure-sensitive recording sheet contains a 2,2,6,6-tetramethylpiperazine deriv. in a microencapsulated colorless electron-donating dye or in a colorant layer contg. an electron-accepting compd. The sheet shows excellent lightfastness. Thus, an emulsion contg. a 4.4% aq. soln. (adjusted to pH 4) of a partial Na salt of poly(vinylbenzenesulfonic acid) 100, crystal violet lactone 4, and I 2 parts in 1-phenyl-1-xylylethane 100 parts was mixed with an aq. soln. contg. melamine, HCHO, and their primary condensation products obtained by heating (60°, 30 min) a mixt. contg. melamine 6, 37% aq. HCHO 11, and H2O 83 parts, the mixt. adjusted to pH 6, and heated at 65° for 30 min to complete microencapsulation. To the obtained soln. was added a 20% aq. soln. of etherified starch 200, starch particles (av. size 40 µm) 47, and talc 10 parts, the soln. dried, and the microcapsules coated on a sheet at 40 g/m<sup>2</sup>. The obtained microcapsule sheet was brought into contact under 600 kg/cm<sup>2</sup> with a sheet prep'd. by coating a mixt. contg. H2O 70, ZnO 2, CaCO<sub>3</sub> 18, Zn 3,5-di-α-methylbenzylsalicylate 4, a carboxy-modified SBR latex 2.5, and 10% poly(vinyl alc.) (sapon. degree of 99%; d. p. of 1000) 12 parts to develop a color. The colored sheet exposed to sunlight for 4 h retained 82% of its original d. vs. only 49% for a I-free control.

**IT** **99336-91-1**  
 (pressure-sensitive copying paper with microcapsules contg. color-forming compn. contg. leuco dye and)

**RN** 99336-91-1 HCA

**CN** Propanedioic acid, 2-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-2-(1,1-dimethylethyl)-, 1,3-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (CA INDEX NAME)



IC ICM B41M005-12

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

IT 26275-88-7 52829-07-9 **99336-91-1**

(pressure-sensitive copying paper with microcapsules contg.  
color-forming compn. contg. leuco dye and)